

Memorial Sloan-Kettering Cancer Center

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Industry

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Application

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Solution

Plasmon Archival Storage Solution including:

- > Plasmon UDO AA638
- > UDO2 60GB drives and media

Benefits

- > Seamless migration of legacy data to latest generation technology
- > Ongoing, rapid access to information
- > High-reliability, high-capacity



Memorial Sloan-Kettering Cancer Center is the world's oldest and largest private cancer center. The Center has devoted more than a century to patient care as well as to innovative research, making significant contributions to new and better therapies for the treatment of cancer. Memorial Sloan-Kettering Cancer Center has developed a network of community-based, state-of-the-art outpatient cancer treatment facilities across New York and New Jersey.

Research is a critical function of the Center and to facilitate and enhance the work of their researchers, Memorial Sloan-Kettering maintains a system of 34 core facilities – specialized laboratories that offer shared services to many users. This centralized data center facility maximizes expertise and eliminates duplication of costly equipment.

Business Challenge

The Center began storing medical images in data centers in 1998 and has since accumulated over 200 million images. In 2006 the Center decided they needed a new archiving solution that could hold an infinite amount of data, comply with HIPAA and industry regulations, and be a permanent store for all previous and future images.

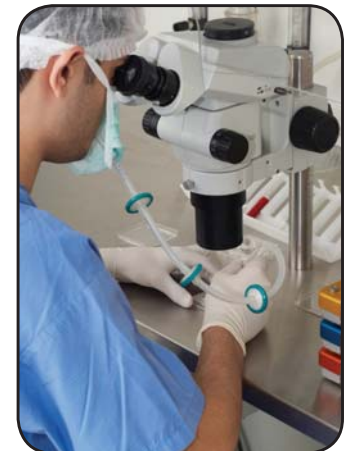
In addition to seeking a reliable and compliant solution to support center expansions, Memorial Sloan-Kettering Cancer Center had to move over 25TB of legacy exam data from the previous disk-based and Magneto Optical (MO) systems to the new archive solution. The reason

for this migration plan was to ensure over a decade of critical images could be accessed from any workstation throughout the Center's network of clinics.

As part of Memorial Sloan-Kettering's dedication to high-touch patient care and innovative research they have implemented 450 workstations for radiologists and oncologists to use as a quick and easy way to access and share images of

exams and data from anywhere in the network. These networked workstations are all linked to a central storage environment that is architected with multiple layers of redundancy, including a requirement to support a complete disaster-recovery layer. It was critical to Memorial Sloan-Kettering that any new solution be scalable, reliable, and redundant.

Through their workstation network, the hospital adds approximately 800,000 images a week. On average, 20–200 images are taken during one exam and each image is at least 20KB. Radiologists need to access these large files



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Peter Kijewskp

Technology Solutions Manager
Memorial Sloan-Kettering Cancer Center

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quickly from any of the workstations at any time and sometimes with little to no advance notice.

"Because of the strict industry regulations and the critical nature of our data, we were committed to finding a solution that would provide a true, long-term archive – one that offered not only longevity but authenticity and ease of access to our critical information assets from anywhere in the Clinic network," said Peter Kijewskp, Technology Solutions Manager, Memorial Sloan-Kettering Cancer Center.

In addition to the scalability requirements, Memorial Sloan-Kettering needed to make sure that the solution was compatible with its GE Healthcare Centricity PACS solution and would be endorsed by GE Healthcare as an approved, supported archival technology.

Solution

When reviewing options, Memorial Sloan-Kettering felt that disk archives were unproven for long-term retention and need to be replaced every five years. Similar to tape, there is a significant amount of data migration that must occur when arrays are replaced and data authenticity, permanence, and compliance can be at risk during this process. Memorial Sloan-Kettering's dynamic, growth-based environment demanded a scalable solution and given the cost and past performance issues they had with spinning disk, the Center was looking for an alternative option.

With disk being ruled out as a stand-alone option, Memorial Sloan-Kettering decided to take a tiered storage approach using a combination of HP disk and Ultra Density Optical™ (UDO) technology. The team chose to develop a solution that would maintain multiple copies of the most-critical data. By using a disk solution and Plasmon UDO Archive Appliance™ (AA), Memorial Sloan-Kettering was able to follow archiving best practices and maintain multiple copies of data on different types of media with a primary data store and a disaster-recovery, secondary data store.

To diversify and ensure they were meeting strict guidelines, the Center deployed Plasmon's AA638 Library to create a third copy of data that is stored on UDO media. Plasmon's archive solution is an integral part of the storage system that is the repository for the entire mission-critical data for the Center's imaging system. Memorial Sloan-Kettering uses Plasmon as its disaster-recovery layer to complement the HP RAID farms.



GE Healthcare

"With the constant stream of patient images and critical research that comes into the Center, the amount of information that needs to be archived is growing exponentially. Add to this the HIPAA requirements and industry regulations and we had to be sure that we were managing our data effectively and not just relying on a storage solution," said Kijewskp. "With the addition of the initial UDO AA638, we immediately improved visibility into our business information assets and easily met our service level agreements and best practices for archiving our critical data."

Results

Memorial Sloan-Kettering Cancer Center is now using Plasmon's UDO2 60GB technology and as a result has doubled the amount of dedicated disaster-recovery storage. Additionally, the Center is in the process of completing the migration of 25TB of legacy data over from MO to UDO2. Once the upgrade process is complete, the Center plans to implement GE Healthcare's Centricity RIS (Radiology Information System) solution which will reinforce Memorial Sloan-Kettering's position as a technology innovator in the medical field.

"Plasmon's UDO Archive Appliance is meant to be the ultimate archive in case of a major catastrophe," Kijewskp continued. "I chose the Plasmon UDO solution because its capacity, scalability, reliability, and price were all in sync with my roadmap for our storage practice."

Alliance Storage Technologies, Inc. offers the only enterprise-class archive solution that ensures data permanence, authenticity, access, longevity and removeability, at the low total cost of ownership that businesses demand.

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