

# Bursting at the seams: Storage is growing problem for EHR images

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Selecting the right electronic health record (EHR) system may be the easy part of taking your practice online. The bandwidth, security, and back up needed to protect digital patient and financial records may require substantially more sophisticated equipment and processes or an entirely new approach to data storage and retrieval.

Digital images embedded in EHRs make quickly diagnosing and continuously monitoring patients' conditions easier than ever, but storing those images may overtax existing servers, security systems, and data centers, putting patient records and the operation of your practice at risk, according to [a recent white paper](#).

A significant component of EHRs is "the data from Picture Archiving and Communications Systems (PACS) that include MRIs, CAT scans and x-rays, which generate large image files requiring large amounts of data storage," noted Nav Ranajee in the study from CoreLink. Sharing these files among providers in multiple settings and across multiple devices "demands even greater storage and networking capacities that can strain existing IT infrastructure integrity and security," he says.

Because of its regulatory environment, healthcare has some unique storage needs, according to Laura DuBois, program vice president for International Data Corporation (IDC), which recently released a 5-year forecast of worldwide spending on disk-based storage solutions and software for PACS and EHR systems.

"One of the factors influencing storage growth in the healthcare provider space is the long-term retention requirements," DuBois said in [a study abstract](#). "Retention requirements for PACS images can vary based on state, patient age (adult versus pediatric), and usage (clinical, research, etc.). It is not uncommon for retention requirements for PACS to be decades, and some firms retain PACS images indefinitely. In a recent study, 65% of respondents keep their PACS images forever. These long-term retention requirements influence an increasing amount of storage capacity required to retain these images."

In fact, healthcare will be one of the fastest-growing user segments for enterprise storage systems, added Natalya Yezhkova, IDC's research director, Storage Systems. "Increasing adoption of digital imaging along with fast increase in size of the images is another major trend in the healthcare industry, accelerating growth of disk-based storage deployments," she said.

In addition, physical exposure of servers makes security far more challenging for smaller practices, increasing the potential for violations of the Health Insurance Portability and Accountability Act (HIPAA), Ranajee said. "Medical billing companies, physician practices, nursing homes and other smaller healthcare entities are especially vulnerable since many tend to have servers located onsite behind desks or in closets."

Ranjee said HIPAA's requirements for disaster recovery and contingent operations can be difficult to meet for many practices. He said that although small- to medium-sized groups typically have systems in place to back up their billing and management records, many of these systems will be overwhelmed by the far greater capacity requirements, security, and access needs demanded by EHRs.