



# Professional Management and Outsourcing of PACS Data Storage

## Managed Archive Solutions – a Component of our Enterprise Content Management for Healthcare offering

These days, hospitals are under massive pressure owing to rising costs, growing competition, and the need to curb expenditure. These challenges can only be met by focusing on financially attractive health care services, process streamlining, and cost reduction in the field of administrative processes (e.g., IT system administration, data center operation, etc.).

In the radiology area for one, the administrative overhead for storing, retrieval and securing of PACS (Picture Archiving and Communication System) data is on the rise. The data quantities that have to be stored are virtually rocketing upwards. This is caused by progressively higher image resolutions, faster technical imaging methods, as well as by legal provisions such as prescribed long retention periods. Add to that all the other data needing to be archived over long periods in a hospital. A hospital itself cannot handle such data quantities any more using conventional means.

### Your requirements

Besides convenient long-term archiving of your image data and smooth operating procedures and user-friendliness, your expectations are:

- Future-proof planning and reduction of operating expenses
- Avoidance of additional capital cost
- Protection of your image data against loss and unauthorized access
- Workable service level agreements for outsourcing of PACS data storage (e.g., storage capacity, availability, guaranteed access time, limiting, etc.)

### Our offer

Managed Archive Solutions for Healthcare covers simple and secure outsourcing of image data storage at reliably predictable cost. A special adapter solution installed in the hospital transfers DICOM images to a data center after they have been archived in the PACS system. The image data remain in the cache store of the PACS system until its storage capacity is exhausted.



The data center operator will implement all safety measures needed to maintain a high level of availability as well as for reliable data backup and security, and equally, disaster recovery in the event of catastrophic damage – all at fixed cost and laid down in appropriate service agreements.

The adapter and the related software solution provide:

- A DICOM interface for exchanging medical data with the PACS system. The adapter and the connected data center serve as a DICOM archive. This enables archiving independently from any third-party supplier's PACS system.
- Secure 256 bit encryption of the medical data. The key remains in the hospital. The data are encrypted in the hospital and then both transferred and stored in their encrypted state. This way, the data center operator has no access whatsoever to the stored data.
- Multi-client capability as well as logical separation by means of a unique adapter ID per adapter. This enables several PACS systems to utilize the same physical storage for archiving with the help of their respective adapters.
- An end-to-end commit mechanism along the entire archiving data chain (PACS – adapter – archive).

In a next step, the adaptor is expanded with an open interface enabling long-term external archiving of data of any kind as well using a Web service and a clearly defined invocation command.

Cross Document Sharing – overall access to most diverse data – is already being realized. So the goal is achieved: a long-term archiving of all documents within a hospital and also the ability to make them available for other applications. Moreover, the adapter solution can also be used for internal, customer-owned data centers (e.g., for health service data centers).

A monitoring and reporting output source provides the data center administrator with a detailed overview of storage transactions, amounts of data transferred, numbers of documents, and much more.

#### Your Benefits

Managed Archive Solutions eliminate the need for hospitals to have large storage capacities available to them on-site and maintain the corresponding storage infrastructure in order to store medical image data securely and to be able to retrieve them any time. In addition, they benefit from:

- Future-proof planning of storage costs and significant reduction of these costs.
- Operation, management, and support of the entire storage landscape. It is designed for high availability by means of redundant data storage including escalation management and disaster recovery. This ensures that the latest technology will be available at all times.
- Access protection – outside the hospital, encryption helps protect the medical data reliably against unauthorized access.
- Availability – as image data required by a doctor will either be still in the cache store of the PACS system or can be retrieved overnight, the standard availability of 98.5% is optimal when viewed under cost/benefit aspects.
- Data integrity – storage media and data consistency are verified at regular intervals (e.g., by rewriting data every two or three years) and data are archived twice at two separate locations.

Siemens IT Solutions and Service plays a leading role in the health care area worldwide and offers comprehensive experience in outsourcing business critical data. Besides Enterprise Content Management, we also offer other solutions for the health care area. ECM is a professional information management solution with Managed Archive Solutions – illustrated in this flyer – as one of its constituents.

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Subject to change  
Order No.  
U29714-J-Z401-1-7600  
11/08 | Printed in Germany

#### Siemens AG

Siemens IT Solutions and Services  
Otto-Hahn-Ring 6  
81739 Munich, Germany  
Global Info Desk  
Tel.: +49-1805-444713  
it-solutions@siemens.com

[www.siemens.com/it-solutions](http://www.siemens.com/it-solutions)