

# Celeros Earns Memorial Health Care System's Coveted Designation as Its "Go-To" PACS Storage Supplier

Every organization has a "go-to" guy and in the case of Memorial Health Care System (MHCS), Celeros has earned that designation as its storage supplier for its PACS system. The Celeros EzNAS solution has provided MHCS the flexibility it needed to economically scale its storage, address its HIPAA disaster recovery requirements, reliably serve its patients and has helped MHCS lay the foundation to extend PACS services to its partner doctor's offices.

By Jerome M Wendt, DCIG Lead Analyst

## Company

Memorial Health Care System  
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Chattanooga, TN 37404  
[www.memorial.org](http://www.memorial.org)



## Memorial Health Care System

## Industry

Health Care  
Founded 1952

## Challenges

- Needed to scale a single NAS mount point into the tens of TBs
- Keep years of PACS archive images online to better serve patients
- HIPAA requirement to replicate data offsite for disaster recovery
- Growing need to support partner offices with affordable storage solution
- Storage architecture that accommodated economical storage growth

## Solution

- Celeros EzNAS

## Benefits

- Single Celeros EzNAS file system can scale to tens of TBs
- Single Celeros EzNAS can scale to over 50 TBs usable
- Celeros EzNAS scales on the fly by adding as little as one drive at a time
- MHCS can introduce affordable EzNAS systems into its partner sites
- Replicating PACS images to 2nd Celeros EzNAS for offsite DR
- Celeros exceeding MHCS's service and support expectations

*"I can buy storage from whoever I want but when I need a lot of storage at a great price with great service, I go with Celeros."*

—Derek Mize, Administrator,  
Cardiology/Imaging Services,  
MHCS

## Overview

Memorial Health Care System's PACS Administrator, Derek Mize, did not expect finding an affordable, scalable NAS for the deep archive of MHCS's PACS images to be so difficult. However he was rewarded in his search with his discovery of the Celeros EzNAS. After meeting both his initial budgetary and technical requirements, Mize has accelerated MHCS's adoption of Celeros because of the levels of flexibility, reliability, service and support it provides.

## Memorial Health Care System Profile

Memorial Health Care System (MHCS) is committed to doing its part to provide health care for all, regardless of their ability to pay. As a not-for-profit organization, Memorial exists for charitable purposes and seeks to demonstrate its integrity by reaching out to provide quality health care, free health education, and programs to encourage better health. Memorial provides community benefits that include charity care and a wide variety of services for those in the Chattanooga, TN, area.

## NAS Gets the Nod for MHCS's PACS System

As the main PACS (Picture Archiving and Communication System) administrator for MHCS, Derek Mize needed a more economical and scalable storage solution for MHCS's Siemens SYNGO Dynamics CVPACS.

At the time (about four years ago) storage area networks (SANs) were the primary storage solution that were being used in support of many PACS implementations. But a SAN was not Mize's first choice.

A SAN costs anywhere from 4 to 10 times as much as he wanted to pay plus it did not give him the flexibility that he wanted. As he could only present one mount point to his Siemens SYNGO Dynamics CVPACS system, he wanted storage that was neither complex nor time intensive to manage which he knew that SAN storage could become in his environment.

It was for these two reasons that he decided to explore a network attached storage (NAS) solution as it promised to be a more cost-effective and easier to manage than a SAN.

## 64-bit NAS Becomes a Sticking Point

However finding a NAS solution that met both MHCS's budgetary and technical requirements was not as easy as he expected. One of the sticking points was the inability of NAS solutions to scale to present tens of TBs of storage capacity on a single mount point since they needed a 64-bit operating system to scale to those levels.

In cases where he did find a NAS solution that offered a 64-bit operating system, it had a price tag that exceeded his budget. Since he was just looking to use the NAS solution for the deep archive of MHCS's PACS images, he could not justify paying that type of premium.

So it was as he continued to search the Internet for a NAS solution that met both MHCS's budgetary and technical requirements that he discovered the Celeros EzNAS solution.

## Celeros EzNAS: Enterprise Features, SME Price

Celeros' use of 64-bit operating system in its EzNAS solution was one of the features that initially led Mize to Celeros as he could create and present a single mount point that scaled into the tens of TBs that MHCS's Siemens SYNGO Dynamics CVPACS needed. Further, as the storage requirements for his Siemens PACS system grew, he could easily extend the file system and make it larger to accommodate the PACS system's growth.

Also attractive to Mize was how easy and affordable Celeros made it for him to add more hard disk drives (HDDs) to the EzNAS. Rather than requiring him to buy a fully pre-populated array, Mize could add as little as one HDD at a time to increase its capacity plus he could add the HDDs himself which allowed him to spread the cost of the storage out over time.

But maybe what most appealed to Mize was that the Celeros EzNAS system gave him the enterprise NAS features and management flexibility he needed at a price point that was more reflective of a small and midsize enterprise (SME) NAS solution. Based upon this combination of factors, Mize made the decision to deploy the Celeros EzNAS.

## Four Factors Driving MHCS's Accelerated Adoption of Celeros EzNAS

Mize now has three Celeros EzNAS models deployed. He initially started with a 24-bay Celeros EzNAS X46S with 1 TB HDDs and recently added two more 36-bay EzNAS X49S models with 2 TB HDDs with two more units on order for Q4 2010.

MHCS's accelerated adoption of Celeros is being driven by four factors.

- First, the size of the images associated with each cardiology PACS study is steadily increasing such that a single PACS study can now exceed 5 GBs in size. Since Celeros can add storage incrementally using large HDDs, he can affordably scale up.
- Second, he initially intended to use Celeros just for the deep archive of PACS images. However new HIPAA regulations require that he keep a copy at least 5 miles away in the event of a disaster so he can meet that requirement using Celeros' native replication feature which can automatically copy data offsite.
- Third, MHCS wants to provide the highest level of care for its patients. While HIPAA only requires that it keep 5 years of data, keeping data for longer periods of time allows it to improve the quality of its patient care. Since EzNAS is so scalable and affordable, Mize is keeping nearly a decade worth of data online.
- Finally, more of MHCS's partner doctor's offices are taking X-rays and need fast access to their patient's images. But accessing them via a WAN connection can take 5 – 7 minutes. Using Celeros, Mize is looking to deploy Celeros in these partner offices so copies of patient images can be stored at their offices and made available for instantaneous viewing by the doctors at those sites.

## Celeros Becomes MHCS's "Go-To" Storage Provider

Even with all of these financial and technical advantages that Celeros has over competitive NAS solutions, it is Celeros flexibility, reliability, service and support that Mize cites as the primary reasons that Celeros has now become MHCS's "go-to" storage provider.

In all of the time that he has used Celeros, he has yet to have a HDDs fail on any of the EzNAS models he has in production. Mize says, *"The reliability of my Celeros EzNAS is unbelievable. In over 4 years I have not yet lost a hard drive on any of my three (3) systems and it is almost like I do not have to manage them."*

Even should one fail, because Celeros has all of MHCS's HDDs configured as RAID 6 there is no risk of data loss. Further, because he can replace a failed HDD on his own and keeps spare HDDs on the shelf, he has the freedom to replace it immediately should a failure occur.

He also finds that Celeros service and support goes well beyond its advertised "Monday – Friday, 8 am – 5 pm PST" support hours. Mize comments, *"I am on the east coast and 3 hours ahead of Celeros but I can call them whenever and they will always respond no matter what time of the day it is."*

Not that he has to call them a lot. He can only think of two times in the past 4 years that he has had to call Celeros and those calls were primarily related to the initial setup and configuration of his systems. Mize sums up MHCS's Celeros experience by saying, *"I can buy storage from whoever I want but when I need a lot of storage at a great price with great service I go with Celeros."* ■

### About DCIG

DCIG analyzes software, hardware and services companies within the storage and ESI industries. DCIG distributes industry, company and product analysis by way of viral marketing and community building using the burgeoning BLOG infrastructures created worldwide.

### About Celeros

Celeros is an ardent believer in choosing appropriate technologies that cost effectively solve today's problems and scale to address tomorrow's needs. Its mission is to make reliable, high performance storage solutions easy to operate and affordable.



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