Success Story: Hospital—Medical Imaging and Other Assistance Publique Hôpitaux de Marseille

Assistance Publique Hôpitaux de Marseille (AP-HM) puts the best of technology to use in its four hospitals. That technology generates a lot of data—and that data needs to be intact and available to the thousands of physicians and other clinicians who care for the hundreds of thousands of patients who rely on AP-HM. The digital services team at AP-HM chose Scality RING as the basis for its private “health cloud” to secure its growing volumes of data.

Expertise
Scality’s has expertise in medical imaging archives—with supportive references and proven interfaces—brought peace-of-mind.

Availability
In healthcare, 24×7×365 is a reality. Clinicians demand easy, always-on access to patient data; patient care can suffer if data is unavailable or slow to retrieve.

Scalability
The reality of healthcare is that the volume of data is growing, and the retentions are long, so scalability, without disruption, is critical.
The 3rd largest of France’s academic hospital groups, AP-HM’s four hospitals process 125,000 patient admissions each year, and provide the community with 3400 patient beds. Its busy emergency rooms see 228,000 visits each year, and the emergency services arm takes more than 600,000 calls. AP-HM's commitment to patients shows in the excellent care those patients receive from the group’s 2000 physicians and 8500 other direct caregivers, among the more than 13,000 non-medical employees.

AP-HM strives to employ cutting-edge technology that allows them to offer the full range of diagnostic and interventional procedures. Each of its four hospitals: North, Timone, South and Conception; has comprehensive breadth of technology on which a wide range of examinations and interventions are practiced: conventional radiology, interventional imaging, women’s imaging, nuclear medicine, radiotherapy and more. With all of that technology, AP-HM’s information technology team has a huge responsibility to store and safeguard massive and growing amounts of data to—all the while keeping it available for immediate access for patient care.

### Business Benefits

#### 100% Availability

In a patient care setting, keeping data available 24x7x365 can be critical. Waiting for data affects clinician efficiency and can even affect patient outcomes. As configured for AP-HM, the Scality RING can tolerate the loss of an entire data center and an additional drive without any loss of data or access to data.

#### Expertise

Scality's experts worked with AP-HM to configure the storage system to their strict requirements for protocols, security levels and data access modes. The fact that Scality has expertise in the field—with supportive references and proven interfaces—brought peace-of-mind. The fact that it’s included in the UniHA catalog streamlined the process.

#### Ongoing Support

AP-HM has been impressed with Scality’s highly-responsive and available team.

#### Scalability at a Low TCO

No more migrations and easy scalability from a software-defined storage that runs on standard x86 hardware makes future-proofing a reality.

Prior to 2011, AP-HM archived the medical images from the Picture Archiving and Communications System (PACS) to EMC Centera. At that time, the overall volume was just 60TB. They used replication for resiliency, so the total amount of stored data was 120TB, and growing at 20TB each year.

Fast-forward to 2017: Centera had been end-of-lifed, and AP-HM had undertaken a mass migration of data off of the retired system. The NAS they had migrated all of those images onto had grown to 300TB by then, it now accommodated those migrated PACS images and archives as well.

“It took near to a year to migrate the Centera to the NAS, and we got that done by the end of 2011,” said Renaud Masse, CTO, Infrastructure Management at AP-HM. “By 2017, the volume of data stored had grown to more than half a petabyte with our 320TB replicated, and the annual growth had more than doubled, to 40TB per year.”

In the midst of all that growth, 2017 also brought them to the end of the warranty period for the NAS, so, with the inevitability of a big expense looming, Masse and his team...
decided to reevaluate the overall storage plan. “It was very apparent that we needed more capacity for medical imaging, just with current patient and study volume,” said Masse. “But we could also see clearly that those requirements would swell even further as we added new equipment, because resolution and number of slices keep increasing. Then, on top of all of that, more departments – more ‘ologies—were looking to us for storage, and genomics was emerging as a system priority as well.”

No More Migrations

Having been through a highly disruptive Centera migration several years before, the infrastructure team at AP-HM had some strong requirements related to avoiding lock-in and broad compatibility. They insisted on a solution that could accept the data as is – with no format change. And, one that had compatibility with the organization’s broad range of applications; one that could support different protocols, including CIFS and NFS. Other requirements were equally important: proven efficiency beyond petabytes, secure, always available and with future-proof scalability to grow with the inevitable growth of their data.

How Scality Helped Achieve Goals

Moving medical imaging storage to Scality RING has been a huge success. “We have had outstanding support from Scality during delivery and on an ongoing basis,” said Masse. “The performance meets all user expectations. It’s so good, in fact, that we’re getting lots of requests from multiple departments to put new workloads on the Scality RING.”

Today, the RING stores the medical imaging archive for the GE PACS and backup data. And those “multiple departments” that Masse mentioned have a host of different use cases that exploit the flexibility of Scality RING software-defined storage. Among them, AP-HM is looking to add long-term retentions, genomics archiving, genetic testing data, and more.

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Solution Components

Software-Defined Storage

- Scality RING
- Geo-distributed RING, stretched across three data centers

Hardware

- 6 HPE Apollo 4510 storage servers
- 2 HPE DL 360 metadata servers

Software

- GE PACS
- Commvault backup
About Scality Scality builds the most powerful storage tools to make data easy to protect, search and manage anytime, on any cloud. We give customers the autonomy and agility necessary to be competitive in a data-driven economy. Recognized as a leader in distributed file and object storage by Gartner and IDC, we help you to be ready for the challenges of the fourth industrial revolution.

Let us show you how.

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