Every healthcare organization strives to provide as many people as possible with the medical services they need. This is, however, tough to do alone. Alliances and collaboration are often essential—something Lafayette General Health (LGH) has demonstrated to a tee.

LGH is a regional health network in south-central Louisiana comprised of eight hospitals and more than 40 clinics, along with multiple affiliates. In the last four years, LGH acquired seven hospitals and over 20 clinics. This resulted in server and storage environments scattered across multiple facilities, which were costly and difficult to manage. Data volumes also were growing dramatically due to advances in medical imaging technologies. In fact, LGH projects that data will grow from 57 to 300 terabytes in just two years. The IT challenge for LGH was that its previous infrastructure was based on silos, and it could not scale without scheduling for planned downtime.

After evaluating options to accommodate big data growth, LGH chose Dell EMC® Isilon® scale-out storage as the foundation for a data lake to serve its entire network of hospitals and professional centers.

With Isilon, LGH created a data lake that supports rapid business growth by scaling easily. This also enabled IT to take on a new role as service provider, hosting clinical applications for other independent hospitals and transforming from a cost center to a revenue generator. Plus, Isilon accelerated image retrieval for clinicians, to help improve patient care.

As the foundation of its data lake, LGH deployed a Dell EMC Isilon X-Series cluster in its production data center in Lafayette. This environment is replicated to an Isilon X-Series cluster in a disaster recovery site 400 miles away.

The Isilon data lake supports a range of applications, including Nuance PowerScribe, Cerner radiology PACS images, McKesson Cardiovascular PACS images, home drives, department file shares, virtual desktop and user profiles. More than 4,000 radiologists, clinicians, hospitalists, and administrators access Isilon daily. LGH uses Dell EMC Isilon InsightIQ® for performance monitoring and reporting.
In addition, LGH relies on Dell EMC VNX® unified storage to run its VMware environment, along with Dell EMC XtremIO™ all-flash storage to support 2,000 VMware Horizon virtual desktops. LGH uses Dell EMC Avamar® deduplication backup software and system for data protection.

Data lake scales with confidence

With Isilon, LGH now has a data lake that can scale easily and non-disruptively to handle growing volumes of data, including PACS images, emails, and file shares. Before implementing this solution, IT struggled to schedule time even for simple updates because they required downtime. That problem has now disappeared.

William Landry, LGH's director of information systems infrastructure, explains, “Planning 20 or 30 minutes of downtime just to add a disk drive was difficult. We usually had to reschedule many times to avoid affecting one set of users or another. All told it could take a month or more to finally get that one small job done. It was painful and created a lot of stress in IT.

"Now we can expand the system effortlessly. For a healthcare system expanding as fast as Lafayette, that's so essential. It's also reduced anxiety about data growth.”

Transformed IT into service provider

Isilon's ability to scale easily also enabled IT to transform into a service provider organization. Through LGH's Healthy Link initiative, IT now hosts EMR and other advanced clinical applications for smaller local hospitals that cannot afford to comply with U.S. healthcare IT regulations.

"IT traditionally has been a cost center, but in the last few months we've started generating revenue for the business by providing IT-as-a-Service to independent hospitals in the area,” says Landry. "We wouldn't have been able to do that without Isilon. We simply could not have sustained outages every time we added a new customer.”

More facetime with patients

LGH clinicians can access PACS images faster now that they are stored on Isilon. Landry points out the impact on patient care.

"Every second that we can improve our user experience is huge,” he says. "Those seconds add up over time, and if we can give back even five minutes a day to our clinicians, it drastically improves patient care across our organization. The more time they're face to face with a patient instead of on a computer, the better.”

IT has regained time, too. Isilon requires far less system administration to handle different data types in the data lake, which frees up resources for other important tasks.

Landry notes, “Before, we had a full-time storage administrator, but now only about 40 percent of his day is spent on storage; and the rest is doing other work like database management. Isilon is basically a set it and forget it system.”
Organization Overview
Lafayette General Health (LGH) is the largest community-owned nonprofit regional health system in the south-central region of Louisiana, known as Acadiana. With Lafayette General Medical Center (LGMC) as its flagship hospital, LGH also owns or manages seven other facilities across 10 parishes. The LGH system umbrella also includes eight professional centers and clinical affiliations with six other hospitals in the region.

Quality protection and support
Consolidating on Isilon enables LGH to streamline data protection for its internal users and hosted customers. Backup windows shrunk from 24 to four hours, with a recovery time objective of four hours instead of 24 hours.

Landry concludes, “My total experience with Dell EMC has been great. The products are best of breed. And what really makes Dell EMC stand out from everyone else is the quality and consistency of their customer support. It’s a combination that that gives us confidence to support the company’s growth strategy.”