Managing data is a growing challenge for companies of all shapes and sizes. However, for healthcare organizations, it’s a particularly vexing issue.

“Rapid growth, expanded opportunities and the need to keep data accessible yet secure is a core concern,” observes Darryl Meidinger, director of technical service for Univita Health. Based in Scottsdale, Ariz., the firm provides services and support to help people live independently and at home.

Operating from eight locations and employing about 1,200 staffers across the U.S., Univita has undergone a series of mergers and acquisitions in recent years. Not only has this led to changes in the way the company does business, it has meant altering and adjusting IT systems, including storage, to reflect a fast-changing environment.
Make no mistake — an effective storage solution is at the foundation of the firm’s business strategy. “We are constantly integrating multiple storage systems and combining new applications and data,” Meidinger says. “Highly scalable, fault-tolerant and redundant systems that support a sophisticated disaster recovery [DR] solution are a must.”

Fortunately, best-of-breed storage technologies and related processes are assisting the firm in managing integration, especially in the area of IT. And cornerstone to smoothing storage management is a robust, highly scalable NetApp storage system coupled with technology expertise from a long-time technology partner — CDW.

Growing Company, Added Challenges

Over the last few years, storage requirements have exploded as organizations generate and collect an ever-growing volume of digital data. For more than a few enterprises, the ability to manage information and records effectively determines whether they soar or stand still.

Fortunately, storage technology has advanced. And today, businesses are tapping into far more sophisticated capabilities. Univita is at the center of this trend. With an IT operations staff of only 17 in a very competitive business environment, the firm must make the most of its internal capabilities.

The company operates a Windows environment with close to 150 mostly HP and IBM physical servers and 650 virtual servers. It relies on VMware to virtualize its server infrastructure. It also taps into Oracle enterprise applications and Microsoft SQL Server to manage complex data and business requirements.

One thing that makes Univita’s situation unique is that the IT infrastructure must support complex business requirements. In 2008, Genstar Capital, a private equity investment firm, launched Univita with the purchase of a company formerly known as Long Term Care Group. Since then, Univita has made additional acquisitions, including Atenda Healthcare Solutions and several of its affiliated companies.

Storage: Past and Present

In the past, Univita relied on a storage and disaster recovery solution centering on SunGard technology and a storage area network (SAN) from Compellent Technologies. Located in a single data center, the combination provided a 72-hour recovery time window.

Still, the firm recognized a need for a shorter recovery time objective (RTO). And that meant undergoing fundamental changes to its IT environment.

Univita also needed a more robust environment that extended beyond basic data replication at a second network site. It required storage capacity to accommodate current and future acquisitions and the mountains of data that come with them.

“It was time for us to expand our storage area network because we were outgrowing the environment,” Meidinger notes. “We had to look out at the next five years so we could understand the business drivers and the technology issues that come with them.”

Meidinger and other IT executives found themselves examining a variety of critical issues. These included how to migrate from the existing SAN to more efficient disk arrays that could provide the necessary speed, access time and storage requirements.

The company also needed to make use of data deduplication in order to optimize storage efficiency within the storage infrastructure. “We had to have a clear view of things before we could move forward with a cohesive strategy,” Meidinger adds.

Univita opted to migrate to a dual data center configuration, one that taps into a variety of tools, including data replication. “The goal was to bring the recovery window down to a more desirable RTO,” Meidinger says.

While the legacy SAN provided sophisticated features and a high level of functionality, it simply couldn’t address the company’s increasingly complex needs. As a result, “We made a decision to go out and look across multiple vendors and examine all the potential product roadmaps over the next few years,” Meidinger explains. “We had to figure out who was most aligned with our business needs moving forward.”
The list of vendor requirements revolved around key issues: managing strict Health Insurance Portability and Accountability Act (HIPAA) requirements, overseeing other compliance issues, archiving records and managing data. Univita also needed to establish an IT foundation capable of supporting additional acquisitions and the mountains of related data.

It was a task further complicated by the fact that the overall volume of data within Univita has swelled from 200 terabytes in 2008 to more than 450 terabytes of data today. In fact, data growth at the healthcare firm now exceeds 50 percent per year and the trend is likely to continue for the foreseeable future.

**Putting Data to Work**

Building a robust storage infrastructure wasn’t a quick and easy decision for Univita. After consulting with CDW and the storage and data management company NetApp, then weighing various options, the firm decided on the NetApp FAS3160 storage solution for both its current and new second data center.

The NetApp FAS3160 storage solution offers FlexClone technology that instantly replicates data volumes and data sets as transparent, virtual copies. The system also offers data deduplication for eliminating duplicate or redundant information.

The approach also provided 50 percent storage space savings as well as notable features and cost efficiencies. (The NetApp Virtualization Guarantee Program states that firms using its open storage controllers and deduplication can reduce existing data by at least 50 percent when using NetApp storage and at least 35 percent with non-NetApp storage.)

With a more sophisticated storage solution in place, the company can now manage data and integrate storage arrays quickly and seamlessly. In the past, integrating data from an acquisition used to take up to 18 months and require substantial enterprise resources. Now the process requires about nine months and it occurs in a far more automated manner.

For example, shortly after acquiring Florida Home Medical Equipment, a Miami-based firm offering home health services and medical equipment, Univita set out to integrate its data center, servers and storage arrays with its own. It took only one weekend to combine the computing environment, and within four months Univita was replicating data.

A month after that, it embarked on the physical migration of servers and equipment. By midyear 2011, it expects to have the two facilities totally merged.

“We have become very good at merging disparate business and computing environments,” Meidinger says. “It’s become far less of a challenge than it was in the past. A couple of years ago, the company had approximately 300 physical servers within its entire computing environment. About one-third of these were virtual servers.

Today, Univita’s 150 physical servers are about 80 percent virtualized. And the firm hopes to inch the figure up further over the coming months.

Univita has adopted powerful tools and technologies to ratchet up performance. The virtualization capability allows the company to make copies of its core database easily within test and development environments. The ability to clone the database and handle incremental changes, rather than making full copies, has trimmed time and resources.

In addition, the use of deduplication has assisted within a virtualized desktop environment. It has helped the firm take roughly 150 virtual desktop images that would have consumed 1.8 terabytes of space and fit them into 800 gigabytes of storage capacity.
Desktop virtualization also has helped speed deployment of systems and data. In the past, Univita’s desktop architect needed approximately 45 minutes to build a virtual desktop interface to more than 100 systems located throughout the enterprise.

However, using a NetApp cloning solution, the firm is now able to handle the entire process in about 90 minutes. The synergy of running the NetApp storage platform on Cisco 6500 Series Switches and incorporating VMware has made such gains possible.

The new environment provides other benefits as well. For example, Univita previously required eight hours to conduct a backup or a restore of a database within any of its IT environments. “Now we’re able to handle the task in 30 to 40 minutes,” Meidinger points out.

Finally, Univita has been able to achieve a 50 percent reduction in virtualized server space using the NetApp solution. As the environment moves more and more into the virtualized realm — the company expects to achieve a 90 to 95 percent virtualization rate within a few years — the technology will pay additional dividends.

**New Spin on Storage**

Meidinger says that Univita will expand on the NetApp storage platform. Over the next 12 months, “We have several more acquisitions under consideration. That means more environments that we will need to bring into the fold,” he notes.

In fact, it’s likely that the firm will need to add another 60 terabytes or more of data to the storage environment. “We expect the pace of the acquisitions to continue through 2010 and into 2011,” he explains.

Furthermore, the NetApp environment helps the organization put data closer to where it’s needed by replicating it to various office locations on an hourly basis. Consequently, employees are able to work faster and better while the organization is able to store, manage and access data more effectively.

Remarkably, the NetApp environment allows Univita to get the same performance from SATA disks as it does through a Fibre-Channel SAN. There has been no performance decrease as employees attempt to access the enterprise database and other data sources. This performance boost results from the NetApp Performance Acceleration Module (PAM). The technology accesses data from disks and caches it in order to improve throughput and reduce latency.

At the same time, the NetApp platform addresses other IT issues including minimizing disk spindles, shelving, power, cooling and rack-space requirements. Essentially, PAM technology, available on a three-quarter length PCIe card, transforms disks from the slowest part of a storage solution into a high performance solution.

Not surprisingly, Univita has no plans to slow the march to new and more advanced technology solutions. For instance, it is further integrating Cisco switches and the VMware environment so that it can create a virtual switch that will allow administrators to view activity down to the port level. This capability will fuel further efficiency gains by helping administrators optimize system performance, Meidinger explains.

In aggregate, Univita has transformed a huge business challenge into an opportunity. For Meidinger and Univita there’s no turning back. “We have created strong partnerships and, using the NetApp technology, we have built an IT environment that allows us to optimize IT performance and better realize our business potential,” he says.