DELLEMC

Driving innovation to advance science for life

Boston Scientific relies on optimizing the use of data to develop state-of-the-art implanted medical devices, procedures and treatments that healthcare providers need to improve patients' lives

Boston Scientific   Life Sciences | Worldwide

Business needs

As Boston Scientific's portfolio of medical solutions has grown, the volume of data it collects on products and patients has expanded exponentially. With data stored in many disparate systems, the cost and effort to maintain and manage this infrastructure, build and scale environments, and mine the data were becoming prohibitive.

Solutions at a glance

- Dell EMC PowerMax
- VMware vSphere
- Dell EMC Unity
- Dell EMC SRDF/Metro

Business results

- Dramatic increase in performance on applications and workloads

- Under 1 millisecond latency for improved responsiveness

- Up to 5:1 data reduction enables more product and patient data to be stored at less cost

- Six-nines of availability and agile replication to meet critical demands

- Simplified management to save IT team time and money

Less than

1ms
of latency

Realized up to

5:1
data reduction

Boston Scientific transforms lives around the globe through innovative medical solutions. The company has more than 13,000 products that healthcare professionals use to treat over 30 million patients annually. Boston Scientific's efforts improve the lives of individuals suffering from abnormal heart rhythms, asthma, cancer, chronic pain, digestion and nutrition issues, heart and vascular disease, kidney stones, men's and women's health conditions, and pain management.

To accomplish its mission requires an IT infrastructure that optimizes the use of vital information. "Our infrastructure is super-critical," says Steven Kouvo, technology architect for the company's Core Technology Services group. "Our products often arrive in healthcare providers' hands within hours of scheduled procedures. Patients' lives depend on us—and accessible data is the key."

99.9999%
availability
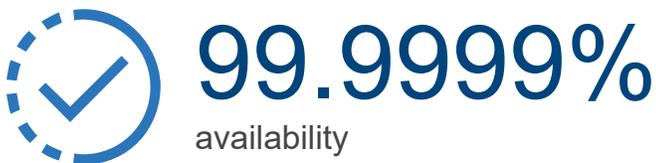
Consolidating data from different systems

The product and patient information that serves as Boston Scientific's lifeblood had been stored in many places, including manufacturing and warehouse management systems and data stores used to run the business. The company's product and digital health teams have also built a database that offers tools to help patients better manage their own health.

This has led to data being stored across a conglomeration of disparate systems—making it expensive and time-consuming to manage and access as required. To remedy this, Boston Scientific deployed Dell EMC PowerMax.

"Dell EMC PowerMax 8000 is the crown jewel of our storage environment," Kouvo comments. "The arrays run our most critical core applications today. In fact, we have consolidated 283 hosted systems onto a single PowerMax."

With up to 4 PB of effective capacity, the PowerMax 8000 arrays are ideal for consolidating the company's workloads. In addition, application performance has improved dramatically—with NVMe over Fibre Channel and storage class memory promising further leaps.

"People are excited about how much faster PowerMax is," remarks Kouvo. "Sub-millisecond response times are critical for our high-demand environments. We're confident we can drive that performance even higher."

Boston Scientific relies on other Dell EMC products and solutions as well, including Dell EMC Unity. The arrays are used for applications running in critical manufacturing plants and remote offices, where they reduce costs and simplify operations through unified storage.

"Dell EMC Unity delivers excellent speed and efficiency, while fitting into a small footprint that's perfect for locations that don't have a full-size data center," Kouvo explains.

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Steven Kouvo
Technology Architect–Core Technology Services, Boston Scientific

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Enhancing agility and availability

To improve its agility and access, Boston Scientific has replicated data across its infrastructure and data centers. Dell EMC SRDF/Metro simplifies what can be a complex undertaking—dynamically handling the replication to create true active-active data centers.

Coupled with six-nines of availability, this provides for reliable workloads in the company's VMware virtualized environment. The machine-learning engine built into PowerMax also ensures that data is placed in line with service-level requirements, further enhancing agility and response times. And everything is simplified by seamless non-disruptive migration (NDM) and the intuitive, HTML 5–based Unisphere interface.

"Unisphere for PowerMax is quick and saves a lot of time," states Kouvo. "We used it when upgrading our SAP back end, and the intelligent wizards worked very well."

Delivering exceptional efficiency

With its volume of data increasing so rapidly, Boston Scientific also appreciates the efficiency of PowerMax. The company has achieved data reduction ratios of up to 5:1 on its Oracle workloads, and ratios that are as much as 50 percent higher than before on its general purpose workloads.

"We have a true partnership with Dell," Kouvo says. "Like Boston Scientific, Dell EMC is always innovating. They care about our business and want us to succeed."

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>
> Steven Kouvo
> Technology Architect–Core Technology Services, Boston Scientific
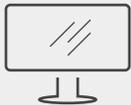
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