**Situation & Solution**

Children’s Hospital Central California is a vibrant, state-of-the-art hospital that provides high-quality, comprehensive health care services to a growing number of children from Central California and the Western United States. Located in Madera, California on a 50-acre campus, the hospital treats more inpatient cases than any pediatric hospital north of San Diego. Its 340-bed facility is one of the 10 largest hospitals of its type in the nation. Its excellent reputation and inpatient growth are increasing the demands on its data center. The hospital must secure nearly 150TB of corporate data from file systems and databases, including digital X-ray images and sensitive patient records.

Children’s Hospital initially used a legacy ADIC Scalar 1000 with four SDLT drives and media when it decided to relocate the Network Services office and staff closer to the data center and update its aging equipment. The ADIC Scalar 1000 library consumed too much floor space, had excessive power requirements, and delivered slow, inadequate transfer rates to and from its tape cartridges. Additionally, the hospital’s growing data exceeded the library’s capacity and was constraining operations. Children’s Hospital IT administrators were rotating tapes manually during each full backup just to protect all their data – significantly impeding productivity.

To address its demanding needs, including performance, security, space efficiency and ease of manageability, Children’s Hospital chose a Spectra T380 tape library with LTO-4 drives and media with BlueScale 11 software and built-in AES-256 bit Encryption and Key Management. The T380 solved power, capacity and space constraint issues and the LTO-4 drives met the compression and speed requirements the hospital required today – still leaving plenty of room to add throughput in the future. Spectra Logic’s 4GB fibre channel SAN-to-drive direct connectivity further improved speed and throughput.

Children’s Hospital's data is mirrored from primary Xiotech SANs to the secondary disaster recovery Xiotech SAN using RAID 10. It is then copied to the Spectra T380 tape library, where data is encrypted, duplicated and rotated to an offsite disaster recovery location. Children’s Hospital conducts a daily differential backup and a full backup each weekend. Production data resides on disk for two weeks and on tape for two months in the disaster recovery data center for instant retrieval as needed. Tapes are then encrypted and rotated offsite every three weeks.

“**The Spectra T380 tape library allowed Children’s Hospital to reclaim 70 percent of data center floor space previously consumed by the ADIC library. Spectra’s footprint was dramatically smaller than any competing product, and allowed us to add additional racks and new equipment to update and expand our primary data center. As a bonus, we’ve moved from managing more than 300 tapes in the ADIC library to less than 70 in the higher-capacity Spectra T380. This enables us to store more data while using 75 percent fewer tape cartridges – saving time and money.”**

- Dave Irwin, network engineer, Children’s Hospital Central California
Children's Hospital is leveraging Spectra's Library Lifecycle Management (LLM) powered by BlueScale11 software. The LLM ScanTape™ feature runs automatic granular health checks on the media, and alerts the administrator of potential errors before they occur by labeling the media red (remove), yellow (proceed with caution), or green (proceed).

“The Media Lifecycle Management report is available through the T380 tape library's GUI and lets me know the tapes' status at a glance so I can proactively retire media that is identified as “yellow” or “red” status,” Irwin added. “MLM is a proactive feature that eliminates data loss because we can act before any loss occurs. With the superior data availability and reliability of the Spectra T380, I've never had an issue locating or retrieving data.”

Patient record safety was a key requirement for Children’s Hospital, where sensitive patient records are managed and media is rotated offsite. Spectra’s BlueScale Encryption lets Children’s Hospital meet HIPAA compliance and eliminates risk while meeting its disaster recovery objectives.

“With the unique TranScale feature, Spectra Logic libraries scale easily and allow us to store more data in a smaller footprint. And BlueScale 11’s features have dramatically improved our network and backup management process,” said Irwin. “I've had great communication across the organization from sales to service to support. As our needs evolve and our data sets grow, we plan to add drives to our T380 and eventually TranScale to the next Spectra Logic tape library—the T680.”