



## Key Highlights

### Business Profile

Children's Hospital Boston is the nation's premier pediatric medical center.

### Industry

Healthcare

### Challenges

Backups were slow and unreliable. The hospital hoped to move away from tape and implement a disaster recovery strategy.

### Solutions

Four DD460 Restorers

### Benefits

- **EASE OF USE:** Backups are no longer a "constant struggle." Administrators can easily run and maintain Data Domain right from the VERITAS NetBackup interface.
- **BETTER PERFORMANCE:** Children's experiences faster, error-free backups, and is assured that backups are recoverable.
- **REPLICATION:** The hospital will soon replicate data from one location to another, enabling fast restores and an effective disaster recovery solution.
- **REDUCED TAPE NEEDS:** Data Domain significantly reduced the institution's tape



Children's Hospital  
Boston

**Client:** Children's Hospital Boston  
**Industry:** Healthcare  
**Solution:** Four DD460 Restorers

## COMPANY

Children's Hospital Boston is the nation's premier pediatric medical center. As one of the largest and top-ranked pediatric medical centers in the United States, Children's offers a complete range of health care services for children from birth through 21 years of age.

Founded in 1869 as a 20-bed hospital for children, today Children's Hospital is a 347-bed comprehensive center for pediatric and adolescent health care. Each year, Children's manages approximately 18,000 inpatient admissions and more than 300,000 outpatient admissions. Children's also helps shape the future and quality of children's health care as the primary pediatric teaching affiliate of Harvard Medical School, home to the world's leading pediatric research enterprise.

## CUSTOMER CHALLENGES

A major pediatric medical center and research institution, Children's Hospital Boston has significant backup requirements: approximately 60 terabytes of continuously growing data, from business systems and research to patient records and radiology imaging files. Reliable backups, as well as the ability to restore files quickly whenever needed, are essential.

As the medical center's backup needs grew, its tape drives seemed unable to keep up with the demand. Drives malfunctioned frequently and administrators often had to rerun backups.

"With new systems coming on board, our backup window was getting tight and things were running much longer than we could stand. A lot of people were losing sleep over our backup environment," said Paul Scheib, Director of Operations and Chief Information Security Officer at Children's.

Scheib saw disk as the likely answer to the hospital's backup, restore and replication objectives. The hospital attempted to improve performance by simplifying its setup, reducing the number of media servers and bringing in virtual tape library (VTL) technology. It turned out to have two problems:

- Instead of simplifying the institution's backup environment, VTL seemed to add to administrators' headaches. SAN configuration issues, software configuration issues and administrative complexity all got worse instead of better. Scheib didn't want to add yet another piece of equipment for administrators to wrestle with.
- In addition, Children's failed to see the performance gains it anticipated with VTL and could not pinpoint the source of the problem.

Beyond performance and reliability requirements, the hospital planned to implement a new disaster recovery strategy. Ideally, it hoped to replicate data at a secondary site that would enable quick access for rapid restores.



“With Data Domain, we started seeing the 20:1 compression we had heard about. We could get a lot of disk in a small footprint. If we had bought a comparable amount of disk from another provider, it would require more chassis and more cost.”

- Paul Scheib, Director of Operations & Chief Information Security Officer, Children's Hospital Boston

## DATA DOMAIN SOLUTION

On a contact's recommendation, Children's Hospital pilot tested the Data Domain DD460 Restorer, reliable backup and recovery appliance for data protection. Because of their experience with VTL claims that did not deliver, Children's did not initially believe Data Domain's claims about capacity optimization. The possibilities of increased ease of use with a reliable disk system were enough to get started.

Data Domain offered a number of key advantages where VTL fell short. With VTL, Children's Hospital would have needed just as much tape infrastructure. The VTL storage would just have been a short-term cache, and most recoveries would still have been from tape. With Data Domain's capacity optimization, the hospital could reduce its need for tape, and could consider gradually phasing it out altogether.

With Data Domain, the hospital could also preserve its investment in its existing VERITAS backup software. No additional software was required on their network of servers.

Whereas other solutions could not accommodate replication, Data Domain could facilitate replication by reducing the amount of data on the WAN, and its related bandwidth costs, through exceptional capacity optimization.

## BUSINESS BENEFITS

Soon after starting the Data Domain pilot program, Children's Hospital began seeing faster, more reliable backups, as well as the 20:1 compression effects promised by Data Domain – a pleasant surprise considering other solutions had promised improved backup and restore times, but never delivered.



“We had heard about improved backup and restore times on VTL, but never saw a significant improvement in our testing. With Data Domain, we started seeing the 20:1 compression we had heard about, as well as the backup and restore speeds that we hoped for in disk-to-disk operations.”

Data Domain systems significantly reduced the hospital's tape requirements, allowing them to decommission one tape library immediately. The new technology also extended the life of their remaining tape library by relegating it only to off-site archival storage. With VTL, the hospital would have needed to upgrade its tape library more quickly to keep pace with growth and shorter backup windows.

The new systems also demonstrated performance improvements, with both backups and restores moving more quickly. The hospital runs multiple streams to the same device, a performance-boosting step it could not achieve with tape without severe impact to recovery time due to multiplexing.

From past experience, Children's had come to expect a constant struggle when it came to managing backup solutions. But in fact, Data Domain defied the hospital's expectations. “We just plugged in Data Domain and it worked,” Scheib said.

Data Domain additionally brings Children's closer to its disaster recovery objectives. With the Data Domain Replicator, the DD460's can replicate data from one location to another. The ability to conserve bandwidth with Data Domain compression will also prove valuable.

Moving forward, Children's plans to significantly reduce their use of tape. In doing so, Scheib anticipates significant additional space, labor and cost savings.

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