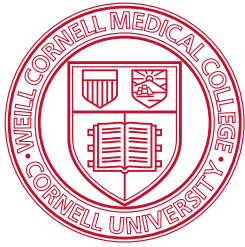


3PAR CUSTOMER CASE STUDY



3PAR Gives Energy-Strapped NYC Medical College Datacenter a New Lease on Life

EXECUTIVE SUMMARY

INDUSTRY
Education

CUSTOMER
Weill Cornell Medical College: one of the top-ranked clinical and medical research centers in the country.

SITUATION
Growing data needs were causing Weill Cornell Medical College to outgrow its NYC datacenter, which was suffocating under the weight of legacy storage arrays with large space and power requirements.

SOLUTION
3PAR InServ® T400 Storage Server
3PAR InServ® S400 Storage Server
3PAR InForm® Operating System
3PAR Thin Provisioning
3PAR Dynamic Optimization
3PAR System Reporter
3PAR Virtual Copy

RESULTS

- Saved \$1M in up-front storage costs.
- 76% reduction in capacity requirements.
- 66% reduction in storage footprint.
- 10% reduction in power requirements.
- \$100K+/year in administrative savings.
- Improved VMware performance and ROI.

OVERVIEW

Founded in 1898 and affiliated with what is now New York-Presbyterian Hospital since 1927, Weill Medical College of Cornell University is among the top-ranked clinical and medical research centers in the country. In addition to offering degrees in medicine, Weill Cornell also has PhD programs in biomedical research and education at the Weill Graduate School of Medical Sciences and—with neighboring Rockefeller University and the Sloan-Kettering Institute—has established a joint MD-PhD program for students to intensify the pursuit of Weill Cornell's threefold mission of education, research, and patient care.

SITUATION

Since it also manages the health care records for the patients of the New York-Presbyterian System, Weill Cornell has huge storage needs that are continually growing. These data requirements were the reason that the medical school was not only outgrowing its datacenter, but literally running out of space and power in the heart of New York City—a place where both space and power are at a premium. Weill Cornell requires redundant power for its datacenter, meaning that it relies on locally generated power—a finite resource—to meet its energy needs. Weill Cornell's datacenter was not able to draw more local power, so continuing along this path was not an option.

Because the traditional storage arrays that were threatening to suffocate its datacenter were also reaching end of life, the medical college identified this as an opportunity to reduce storage footprint, minimize power consumption, and gain the ability to scale effectively “within the box” and without compromising performance or efficiency. This was also Weill Cornell's opportunity to finally deploy a robust, highly virtualized storage infrastructure that would work seamlessly with VMware®.

3PAR SOLUTION

The medical college determined that only the 3PAR InServ® Storage Server could deliver an ideal mix of efficiency, agility, and scalability at the right price. Weill Cornell considered storage arrays from several major vendors, but found that the high-end options were expensive and not in proportion with its datacenter's needs, while the low-end options were not robust enough

Consolidate your datacenter. Reduce power, cooling, and footprint.

and lacked the advanced virtualization features it was looking for. Instead, Weill Cornell needed an answer that was tailored to its specific needs.

Only 3PAR® InServ arrays offered the medical college advanced functionality combined with the ability to start with just the right amount of storage and then scale effortlessly within the same box to keep pace with data and application growth—without risking datacenter sprawl. With 3PAR, capacity could be added at any time—simply and seamlessly—without performance degradation or impact to running applications. With legacy dual-controller arrays, expansions meant adding new machines and multiplying space and power requirements—in other words, major surgery.

After lengthy evaluation, Weill Cornell initially deployed one InServ S400 array and then added an InServ T400 array to meet all of its consolidated development, test, production, database environment, and backup and recovery requirements. A portion of these InServes were also deployed by Weill Cornell for use as part of the 3cV solution—a proven blueprint or highly virtualized utility computing that combines 3PAR Utility Storage with the HP® BladeSystem c-Class blade servers and VMware® Infrastructure to deliver transformative levels of agility and efficiency. Because all InServ arrays support multiple disk tiers, Weill Cornell has been able to configure its InServes with premium, higher performance Fibre Channel drives for production medical records databases and Microsoft® Exchange workloads and more economical Nearline (SATA) drives for development and testing environments—all within a single, power-efficient array.

RESULTS

By consolidating onto 3PAR Utility Storage, Weill Cornell's aging datacenter has received a new lease on life. Six legacy arrays have been eliminated and datacenter power consumption has been reduced by 10%. This has enabled Weill Cornell to avert a space and power crisis that would have forced the medical college to take drastic measures to sustain the datacenter and its energy needs.

With its datacenter no longer bursting at the seams, Weill Cornell now relies on 3PAR Utility Storage for its first and second tier data storage needs. This change has saved the medical college an estimated \$1 million in up-front costs as compared to the other enterprise-class storage solutions considered for this project. These savings are a result of purchasing “right-sized” storage with “grow-as-you-go” capabilities combined with a 76% reduction in physical capacity requirements thanks to 3PAR Thin Provisioning—an efficiency enhancement that is unheard of with legacy arrays.

With 3PAR, we were able to deploy enterprise-class storage at a mid-range price. Without 3PAR, we would have had to buy much more capacity than we needed, or we would have had to purchase multiple separate systems to accommodate our needs. Instead, our InServes are designed to fit our needs perfectly—even as we grow.

Sanford E. Coker III
Clinical Team Lead &
Senior Unix Administrator
Weill Cornell Medical College

Eliminate management complexities and streamline administration.

Before 3PAR, our datacenter was on life support. We had maxed out our footprint and power requirements and were in need of a cost-effective solution that would allow us to scale simply and efficiently—within the box and without compromising performance. 3PAR was the only vendor that could deliver exactly what we needed to give our datacenter a new lease on life.

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Weill Cornell Medical College

Deploying 3PAR also saves Weill Cornell money on an ongoing basis. **Annualized energy savings amount to approximately \$50,000 per year and storage administration costs have been reduced by more than \$100,000 per year.** Weill Cornell's 3PAR arrays are so easy to manage that the medical college was able to avoid hiring an additional full-time storage administrator—a six-figure per annum expense that would have been necessary with other solutions.

One key administrative advantage of Weill Cornell's InServ arrays is support for 3PAR Dynamic Optimization software, which gives administrators the ability to optimize the use of array resources and storage tiers with a single command. Moving volumes and rebalancing workloads across all system resources to ensure optimal service levels is now an autonomic process for Weill Cornell's datacenter. Because volumes are distributed and redistributed over all system resources, whenever capacity is added to a 3PAR array, the array's performance improves across the board.

Dynamic optimization is the one thing that surprised us the most, that really sold us on 3PAR, and the one thing we can't live without. With 3PAR we have eliminated our storage bottleneck. We can now easily triple the number of users we support without any issues. The ability to move blocks around the array as needs change has fundamentally changed the way that we deal with storage.

—Sanford E. Coker III, Clinical Team Lead & Senior Unix Administrator,
Weill Cornell Medical College

Consolidating onto 3PAR has solved I/O issues related to Weill Cornell's medical records databases and has also alleviated impending VMware performance issues in its datacenter. As part of the 3cV solution, Weill Cornell's InServs boost VMware performance, flexibility, and ROI. The exceptional I/O performance of its InServ arrays has completely alleviated server memory issues and has freed its datacenter from traditional storage constraints so Weill Cornell can take full advantage of VMware hardware and resource consolidation.

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