



# STORAGE NETWORKING

## 2005 COMPUTERWORLD HONORS CASE STUDY

### BUSINESS & RELATED SERVICES

A 100-LAWYER FIRM IN NORTH CAROLINA SUCCESSFULLY IMPLEMENTED A IT SOLUTION THAT WOULD OFFER THEM THE SAME BENEFITS OF A LARGE SCALE SAN YET BE FINANCIALLY VIABLE FOR THEIR SIZE FIRM, THUS FACILITATING COMPLEX, DATA-INTENSIVE WORK, SUCH AS THAT RELATED TO NEWHIPAA COMPLIANCY LAWS, IMPROVING GENERAL EFFICIENCY, AND MEETING BOTH FIRM AND CLIENT EXPECTATIONS OF BUSINESS CONTINUITY. [20055408]

*A Search for New Services*



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### SUMMARY

Smith, Anderson, Blount, Dorsett, Mitchell & Jernigan, L.L.P. (Smith Anderson) is a law firm in Raleigh, North Carolina with approximately 100 lawyers. For the past two years they have worked closely with EMC to implement a solution that would offer them the same benefits of a large scale SAN yet be financially viable for their size firm. New laws, such as HIPAA compliancy laws, coupled with both firm and client expectations of business continuity, resulted in Smith Anderson's desire to find a solution that would mirror the benefits of a large scale SAN. Their efforts over the past two years have resulted in the implementation of EMC's Cariion CX 600 with a NAS gateway.

### APPLICATION

Smith Anderson's clients include some of the largest financial institutions, insurance companies, and technology companies in the nation. These clients expect the law firms they deal with to have the necessary technology in place that will provide the expected protection, redundancy and speed to support their service needs.

When this project began two years ago, there was an opportunity to build a new and improved infrastructure from the ground up. Like many firms, they had older technology with many disparate file systems and data spread onto various servers with virtually no redundancy and minimal security.

The goal of the Firm was to find or develop a system that was 'leading edge' not 'bleeding edge' and which would be appropriate for a Firm this size. Along the way, financial implications were weighed against the potential benefits of data security. By streamlining, centralizing and implementing software to manage their data, Smith Anderson was able to support and protect the Firm without increasing the size of the technology department.

The first phase of the project was to determine where all of the data was located and determine what data was current enough to keep and what data should be archived. Once data was defined and located an analysis was performed to determine the relative value of the data, including the identification of which pieces of data were truly critical and whose loss would be catastrophic, or at the least, its loss would impede the Firm's ability to carry on its normal business functions. First and most obvious of the critical data sets were those of the Firm's time and billing applications. Additionally, all final client and selected Firm documents, as well as the Firm's e-mail system, were deemed to be critical and thus needing added layers of protection and redundancy. Those services and data that were defined as critical constituted the starting point in the hunt for a technological solution that was both affordable and provided the Firm an opportunity to meet the levels of protection that larger solutions would provide.

Upon learning that EMC had introduced a small to midsize SAN solution, a feasibility study was begun to evaluate both the financial commitment that would be required, as well as the technological commitment. Based on the size of the Firm and the correlating impact such a project would have on overhead, the decision as to what solution was best for the Firm, both technologically and fiscally, could not and was not taken lightly. Projects of this magnitude require a great deal of 'selling' and the justification had to be well documented in order to obtain final approval. Because of the size of the Firm, projects such as this are not undertaken very often and the reputation of the technology team was at stake.

The solution being sought was one that would both centralize the data and offer tools to manage the

volumes of critical data. An important piece of the puzzle was that of insuring that the Firm would have the ability to monitor all components for predictive failure. Another was the need for redundancy, with automatic fail-over so that any problems that might arise could be fixed without any network disruption. Quarterly reports and graphs that showed trends and would point out areas requiring attention before they became a serious problem was another requirement. Finally, with the numerous operating systems already in production, the SAN had to assist in the eventual consolidation by offering interoperability.

EMC's Clariion CX 600 has been a viable solution for Smith Anderson in that it has given the Firm an enterprise solution designed for organizations their size, while also allowing for expansion due to any future growth the Firm may experience.

## **BENEFITS**

The SAN solution provides the required business continuity plan Smith Anderson set out to design, including providing a roadmap in the event of some catastrophic failure. The snap-view feature of the Navisphere Management software takes a snapshot or full copy of the Firm's production data every four hours. In the event of a major failure this will allow the Firm to rollback to the snap-view almost effortlessly, resulting in an almost immediate restoration of the data. This is a very important feature and provides a great deal of comfort to lawyers who are already stressed with deadlines.

Other benefits of this technology include fewer servers to manage, a decreased risk of failures, consolidated low-end servers and storage, and increased availability to critical applications. As a result, the Firm is able to increase capacity of volumes easily without disrupting day-to-day business operations. Copying files, especially large files, to multiple locations on the SAN is faster because of the fibre connections.

## **IMPORTANCE**

The pressure of meeting deadlines and client demands offers today's law firm very little room for errors or failure of any kind. Because of this, the technology staff at Smith Anderson is always looking for solutions to system weaknesses or potential disruptions in an effort to avoid future problems. The loss of documents due to network failure is simply not acceptable in today's fast paced world. The excuse "our network crashed" provided little comfort to a client whose matter hangs in the balance. Because of this, Smith Anderson knew that it was critical that our systems be capable of restoration almost immediately. Clients, at least those as sophisticated as ours, expect the law firm that represents them to have a solid and secure infrastructure already in place, rather than one that is held together by hopes and prayers. With the needs of clients and the landscape of technology constantly changing, Smith Anderson knew that the Firm's network had to be capable of growing and changing with time – and doing so in an affordable and non-intrusive manner.

## **ORIGINALITY**

In partnership with the EMC Clariion CX 600, Smith Anderson was able to implement an enterprise SAN that was workable, both from a functionality as well as a cost standpoint. Historically, SAN and NAS technology had been unreachable for law firms the size of Smith Anderson due to their pricing. Because of this, many firms were left without any available technology that would provide them with the redundancy and security they needed and could afford. When the Clariion CX 600 became available it was obvious that they provided Smith Anderson with an opportunity to build a new network that provided the same functionality and protection that only larger firms had been able to afford in the past.

## **SUCCESS**

Because of the successful rollout of the new system, the technology staff now has time to work on meaningful projects rather than spending most of their time putting band aids on problems only to have them continually reoccur. Since the implementation of the new SAN technology there has been a tremendous feeling of relief. The pressure and fear of having a system crash and documents lost has been replaced by the satisfaction that comes with knowing that the new system is both stable and reliable and that, for all intent and purposes, lost documents are a thing of the past. Lawyers, who were once skeptical about the role technology played in their law practice, have noticed better performance and less down time and have now begun to look at the technology department as a partner with them in their practice. The new SAN has created a sense of pride – pride that comes from

having an innovative solution that allows Smith Anderson to reap the same benefits previously enjoyed only by larger firms with large scale enterprise solutions. As a result, the IT culture at Smith Anderson has changed for the positive. Members of the IT department are rightly proud of this monumental accomplishment and know that they have made a significant contribution to the continued success of the Firm.

Because the Firm presented a ‘blank page’ when it came to addressing the desired solutions, the technology department had an opportunity to build an infrastructure from the ground up. While the challenges were many, the willingness to think ‘outside the box’ led to a solution that not only met the needs of the Firm, but one that will continue to meet the needs of the Firm for years to come – something of a rarity in today’s fast paced world of technology.

## **DIFFICULTY**

The Firm faced many challenges, including a culture that was uncertain of the need to spend money on this level of technology. Furthermore, there were the concerns that are always present anytime a new technology is implemented. One option the Firm might have taken was that of hiring more technical IT staff – what could be described as the path of least resistance. However, electing to merely hire more people was not the solution the Firm needed and would have only prolonged the problems associated with an inefficient design brought on by fast growth. It would have also done nothing to address the issue of preventing a loss of confidence that occurs when there are on-going server failures. In addition, a non-centralized solution required a burdensome workload for the technical staff. The combination of these factors created tremendous internal stress for the both lawyers and staff who were under pressure to meet deadlines and keep systems operating smoothly. The existing system also made it harder for the Firm to retain competent technical staff.