

IDC ExpertROI® SPOTLIGHT

Using NetApp to Reduce IT Costs, Limit Hours of Downtime, and Increase IT Staff Efficiency

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Overview

The Pennsylvania Office of Attorney General employs approximately 865 people and 23 IT staff. The office implemented NetApp in 2005 as part of an IT environment restructuring that was designed to streamline its overall IT processes.

Prior to the deployment, "the office was a conglomeration of disconnected, disparate, and very antiquated technologies," a senior executive said. "Our server environment was failing on a regular basis. At that time, we had over 150 standalone servers with their own direct-attached storage, which was a very inefficient way of operating." It was apparent that the office needed to make changes to increase efficiencies in its daily operations.

Implementation

At the time of deployment, the attorney general's office designed a comprehensive overhaul of its entire back-end infrastructure. It decided that it would not simply replace the existing technologies with similar but more current technologies — the plan was to establish a new platform in a virtualized server environment that incorporated NetApp storage systems.

The affected environment included the central office and 22 field sites. The company deployed three NetApp systems for use at the central office and one more system used at the disaster recovery (DR) location. In total, the offices have loaded 60 terabytes (TB) into the central office units and 48TB into the disaster recovery system. Prior to implementing NetApp, the attorney general's office was limited to only 10% of the total storage capacity it has at present. It was imperative for the attorney general's office to add

Business Value Highlights

Organization: Pennsylvania Office of Attorney General

Operational challenge: To improve the IT storage environment by offering better performance and reduced IT costs by upgrading hardware

Solution: NetApp

Annual benefits:

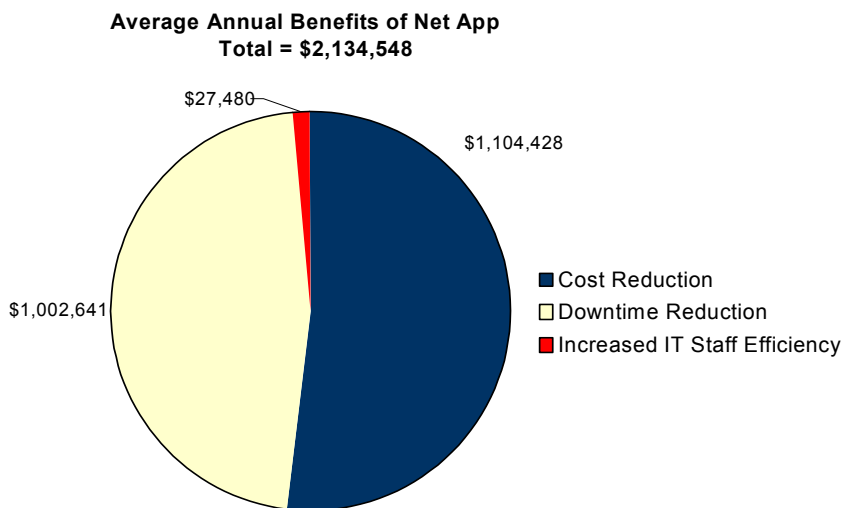
- Average of \$556K in avoided new server savings annually
- Average of \$300K in disk space savings annually
- Downtime reduced by over 18 hours per year
- Average annual benefit of \$2,134,548
- Three-year ROI of 202%
- Payback in 7.8 months

more storage not only to increase the amount of space available but also to provide support for several new mission-critical applications that would be deployed soon after the new storage implementation was complete.

Benefits Since Deploying NetApp

The Pennsylvania Office of Attorney General has experienced benefits in three areas since the deployment: cost reduction, user productivity increase/reduced downtime, and improvement in IT staff efficiency. These benefits are discussed in detail in the following sections. The average annual savings and proportion of benefits are shown in Figure 1.

Figure 1.



Source: IDC, 2009

Cost Reduction

By rebuilding the server structure in the IT environment, the attorney general's office was able to cut the number of standalone servers from approximately 150 to 65. In addition to reducing the total number of boxes, the office was able to significantly increase processing power by adding virtual machines as well.

At present, the Pennsylvania Office of Attorney General estimates that it is using 60% of total server capacity. To achieve the same performance level in the old environment, "we would have to continually overbuy new servers and we would not have the flexibility of being able to create new servers as we need," an office executive said. The office is also able to tailor the servers to meet specific needs for its applications. The attorney general's office estimates that it is avoiding the purchase of 100 machines at a cost of approximately \$5,000 each in the first year alone. In each of the subsequent years, the office estimates that it will save one-third that amount. IDC entered these savings into a three-year ROI model — the result is an average annual benefit of \$555,556.

The offices have reduced costs associated with storage and spending on disk space per year. As a company executive said, "We have had a cost avoidance on disks, about a 35% savings in the storage space environment. We were able to eliminate a lot of what we would have normally needed to purchase, about \$250,000 worth of disk saved in the first year. And going forward, we will avoid another \$50,000 on top of that." In the ROI calculation, IDC applied the first-year savings and added \$50,000 for years two and three. The result is an additional average annual savings of \$300,000.

Because the Pennsylvania Office of Attorney General has ceased using an outside vendor, it is avoiding that annual cost. As mentioned in the interview, "We had a contract with a vendor who maintained some of the data in our old environment. That contract was about \$100,000 annually, and it was growing. We eliminated \$100,000 per year completely because we had the ability to back up to our own facility at our DR site." The savings from avoiding backup tape equals \$101,003 per year on average.

The customer is achieving greater efficiency because the NetApp deployment has allowed the IT staff to avoid hiring one full-time equivalent (FTE) who would have spent three-quarters of his time dedicated to provisioning new capacity and storage management. This is an average annual savings of \$87,267.

The Pennsylvania Office of Attorney General was able to reduce telecommunications costs by improving its use of current bandwidth and not having to increase phone and Internet service levels. As a senior executive said in the interview, "With the rate that the data was growing and how much we had to pump up to the outside storage vendor, we are avoiding \$60,000 per year in annual telecommunications cost avoidance because we didn't have to increase the size of the pipe."

User Productivity Increase/Downtime Reduction

Prior to the NetApp deployment, the office had a major storage failure approximately once every two months, and the average outage lasted 36 hours. A severe outage would require the IT organization to completely rebuild the storage array, which was "a painfully slow process and would impact about 75 people on average," one executive said. Because the office has nearly eliminated these outages, each user is saving 216 hours per year, and the value of the time saved across all 75 users is \$1,002,641 on average annually.

Increased IT Staff Efficiency

Since the NetApp deployment, the IT organization is saving an estimated 20 hours per month on storage allocation tasks. This is equal to a savings of \$14,854 on average annually. It was mentioned in the interview that "there is a ton of saving on uploading and reloading data. Our users now have the ability to restore their own now." The attorney general's office estimates that the help desk is saving 15 hours per month because loading data is more efficient. The time value of the savings at the help desk is equal to an average annual savings of \$11,140. The office also reported that it is saving two hours per year checking disk archives.

NetApp ROI Results

IDC entered the data from the interview with Pennsylvania Office of Attorney General into a three-year ROI model. The return on investment is 202% and payback occurs in 7.8 months. The results are displayed in Table 1.

Table 1.

Three-Year ROI Analysis	
Benefit (discounted)	\$ 5,176,965
Investment (discounted)	\$ 1,714,797
NPV	\$ 3,462,167
ROI	202%
Payback	7.8 months
Discount rate	12%

Source: IDC, 2009

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