# CASE STUDY

# PROFESSIONAL HEALTHCARE RESOURCES MEETS USER SATISFACTION GOALS WITH VISX

*"We quickly moved our VMs over to the ViSX appliance and the performance difference was like day and night."*

**Hussein Sh-Ibrahim**
**IT Director**

## Overview of Professional Healthcare Resources (PHR)

Professional Healthcare Resources, based in Annandale, VA, is an innovative company dedicated to helping thousands of Maryland, Virginia, and DC patients improve the quality of their lives. From skilled nursing to therapy to personal care and hospice, PHR helps those recovering from recent hospitalization or illness, or those who just need some assistance with the activities of daily life. Founded in 1994, PHR cares for over 2000 patients per day.

## IT Environment

Three years ago, PHR moved from a paper-based patient care system to a digital system using tablets as client / input devices. Today, six IT professionals support the entire PHR network of servers, networks, storage, clients, and applications. The physical datacenter infrastructure is based on 40 HP and Dell servers, including virtual machines, communicating over an Ethernet / iSCSI network to a shared

Astute ViSX Performance Storage Appliance. Healthcare applications, primarily related to patient care, are built around Sybase databases. MS SharePoint is the collaboration tool for all employees and is also supported by the ViSX.

Going forward, PHR plans to implement approximately 200 virtual desktops to improve desktop support, enabling an easier to manage, more reliable infrastructure for the end user devices - tablets and Windows PCs.

## IT Challenges

With the legacy installed HP StorageWorks and Dell PowerVault storage systems, capacity utilization was not optimized, but performance was the biggest issue with the user community. Automation of all patient care processes has been an ongoing effort, which has placed new demands on the storage infrastructure. With patient satisfaction a primary business driver, the IT team was charged with improving response times for all the patient-facing applications.

## Solution Evaluation

In 2012, PHR began searching for a new storage solution, and determined that hybrid arrays (looked at Nimble) and the Dell EqualLogic solution were not cost-effective and didn't have the right balance between performance, cost and environmentals. After talking with Astute customer references, Mr. Sh-Ibrahim decided to take advantage of the Astute "try and buy" solution. During the 30-day evaluation and after seeing the initial outstanding performance results, he became convinced.

## ViSX Deployment and Results

First deployed in the summer of 2012, PHR connected the ViSX appliance in a matter of minutes once they deployed their Ethernet local area network with the iSCSI protocol. PHR had been using direct-attached storage, but found migrating to iSCSI-based storage was a very easy upgrade.

## Some of the key benefits of the Astute ViSX deployment at PHR

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| ViSX Evaluation Unit Demonstrated Markedly Faster Application Performance | "The difference in performance between our old DAS array and the ViSX appliance was like night and day" said Hussein Sh-Ibrahim, IT Director. "And after PHR deployed its first ViSX appliance into production, we saw a dramatic increase in the responsiveness of our Sybase database applications." |
| Quick ViSX Implementation | Hussein adds "Virtual machine application performance has been optimized. Productivity and efficiency is up as well, because our employees can now quickly access patient data like never before." |
| Backups using Symantec are completed in 1/5 the time | Hussein goes on to say: "What used to take 4 – 5 hours, now completes in less than an hour, enabling me to do other backups that I was not able to do before." |
| Faster MS SharePoint performance | When asked about his SharePoint deployment, Hussein said "It's running fantastic, much better than when it was running on the server's hard drive". |

## Summary

By adding a purpose-built ViSX Performance Storage Appliance to its physical and virtualized environments, PHR now has access to performance-optimized datastores that rely exclusively on solid state flash technology. The ViSX appliance is seamlessly integrated into PHR's VMware virtualized environment and they expect it to work with their future effort to deploy virtual desktops. PHR is now enjoying these ViSX benefits:

- Improved Sybase application performance
- Increased sustained random IOPS performance for virtual machines and virtual desktops

- Delivered "fantastic" SharePoint response times
- Improved backup completion times by 4 – 5X
- Lower data center environmentals (power, cooling, and floor space)

When asked if he would do anything differently, Hussein simply said that "If you want fast performance quickly, get ViSX".