



TECHNICAL & SCIENTIFIC APPLICATION, INC.

Medical Payer Based in Southeast: VDI Congestion

About the Company:

A long-standing Medical Payer in the southeast with nearly 4,000 staff members sustains an impressive heritage of service excellence and business repute. Recognized formally for its membership retention, the Medical Payer has also been repeatedly highlighted for the care and energy that they consistently put into ensuring the health and satisfaction of their constituents.

As such, the Medical Payer's primary focus is on promoting internal efficiency and deploying their resources to best suit their customers' needs. The company has established itself an industry leader in maintaining low administrative costs (by putting the vast majority of their resources towards patient treatments). Despite the regular changes in the healthcare industry, the Medical Payer remains a solid leader in both internal performance and customer satisfaction, marking them as a pillar of their community.

The Company's Challenges:

The Medical Payer had been running all of their network processes out of a distributed shared environment (Hyper-V and Citrix XenApp). As a result, business applications, websites, and VDI instances were simultaneously operating side-by-side, competing wildly for bandwidth. And due to the unpredictability of VDI's compute and I/O demands, the unsegregated environment had become highly inefficient. Because of the conglomerate nature of the environment itself, the company's server, storage, and network teams suffered from lack of coordination and morale-draining miscommunications over system responsibilities. Not only was the network configuration itself inefficient, the disparate IT teams were faced with intense logistical frustrations leading to confusion (and tensions were running high).

Moreover, with all systems and applications operating within a conglomerate environment, the company's various business users had to work through myriad channels (and IT teams specialists) just to complete routine tasks:

- **Storage** team for additional VDI storage
- **Server** team for portal configuration
- **Network** team for IP addresses, and so on.

The process to establish new VDI seats for recent hires was inefficient at best, and day-to-day management was little better.

The Medical Payer recognized that trust in their product was (and remains) integral to their success; they wanted their IT solutions to demonstrate that same reliability to their internal customers. To satisfy these goals, the Medical Payer required a trustworthy business partner that could act as their subject matter expert on improving and updating their virtual desktop infrastructure (VDI) and data storage infrastructure. They needed a flexible solution that could seamlessly adapt to market changes and fluctuations. Most importantly, this partner would need comprehensive knowledge of and experience within the IT industry so that the Medical Payer could ensure the safety of their customers' data and the reliability of their internal systems.

What They Needed:

The company needed to separate their VDI portals and relevant data storage from all other business workloads and processes. Furthermore, in order to remain competitive in the healthcare industry, the Medical Payer required a solution at a price point that would not result in increased premiums for their customers. If this occurred, then the company seriously risked losing



their coveted #1 spot in the industry, not to mention the reduced amount and quality of medical care that they could facilitate for their clients.

In light of these needs, the Medical Payer took the consequent search for an appropriate partner extremely seriously, relying on the full involvement of their entire IT department—from service engineers all the way up to the CIO. The company needed to create proper boundaries in their operations while re-uniting their IT teams (Networking, Storage, Server Engineering) in an effective way. Whatever avenue they chose, however, the company knew that the (future) partner's reputation within the industry would be critical for the success of their initiatives as they would need to be able to ensure the continued trust of their clients in the face of the rearchitecting.

What We Provided:

As with many of our clients, the current working relationship that we have with the Medical Payer was forged years ago when our companies crossing paths due to mutual partnerships. Over seventeen years ago, the Medical Payer partnered with Hewlett-Packard for their various hardware procurement needs and occasionally consulted with TSA as a result. Based on our prior experience working alongside of and familiarizing ourselves with the Medical Payer, our dedicated IT team was able to quickly tailor-make a solution to address their critical VDI needs.

Our first course of action was to remove the VDI from the existing shared pool of Hyper-V resources and place it in its own dedicated network and line of server hardware (effectively creating a separate pool with c7000 blades). This alone would reduce the delays and infighting that the company suffered from in the past as the now-segmented systems would work in tandem without competing for the same bandwidth.

As part of the network segmentation process, the TSA team also procured and configured an HPE 3PAR storage infrastructure to address the company's latency and I/O issues. Due to its MESH architecture and dual controllers (among other things), this storage solution greatly improved the predictability and scalability of the VDI system as a whole. Each node within the MESH architecture can be called upon to assist with throughput in and out of the environment, increasing the efficiency with which the system operates.

Finally, the TSA team conducted the final deployment using flatSAN with fiber channel over a SCSI signal. Ultimately, FlatSAN eliminated the pre-existing switch architecture entirely, and the end result was an easy-to-use new tool in HPE's Virtual Connect FlexFabric system.

What the Medical Payer and TSA Accomplished:

The highly-effective yet economical solutions that we delivered vastly improved the Medical Payer's network productivity and flexibility, all while allowing them

to maintain the low administrative costs on which the company still prides itself today. In addition to the tangible streamlining and considerable (virtual) efficiencies that we enabled through the segmentation of the VDI network, our services also provided solutions at the employee relations level as well.

Instead of the prior inefficient workflow, when various business units need additional VDI seats, they can be arranged within one team and in significantly fewer (and faster) steps. Due to the simplicity inherent to the new infrastructure, the dedicated server team for the Medical Payer is now responsible for the entirety of the VDI data storage and server systems. And because of the user-friendly nature of HPE 3PAR, the company's server team—who used to have to rely on the storage team for all of their data storage needs—can now easily manage the arrays themselves, despite not having any prior storage experience.

Since the new HPE 3PAR storage system was installed over a year ago, the server team has maintained a 100% uptime: a testament not only to the 3PAR's intuitive interface but to the efficacy of the solution as well.

Without a doubt, the coming years will bring new challenges to the Medical Payer. But this new VDI environment enables the company to predictably scale to meet these future challenges, and the granular control that the HPE solution offers enables the IT team to say "yes" to the business units more often.



IS VDI COMPETING FOR BANDWIDTH WITHIN YOUR ENVIRONMENT?

Contact TSA today to discover how we can tailor our services to best suit your needs.