nimblestorage

Hosted Desktop Empowers Mobile Workers with VDI and Nimble Storage

Nimble improves virtual desktop performance, increases storage capacity, and simplifies storage management.

Hosted Desktop UK (HDUK) provides virtual desktops to a wide range of clients in the professional sectors market, including accountants, solicitors, estate agents, manufacturing representatives, and other service professionals. Established in May 2010, HDUK now operates out of three locations in the UK. Its head support office is in Exeter in Devon, and its data centres are based in Newbury, Berkshire and Ash, Kent.

"We specialise in providing hosted solutions that replace traditional, in-house IT infrastructure and enable more flexible working environments," said Adam Chetnik, managing director of HDUK UK. "Our system is uniquely designed to supply 'the best of both worlds' — the cost efficiency of a multi-tenant system, while providing a dedicated system to ensure clients have the ideal configurations to meet their business requirements."

HDUK currently supports over 650 clients, most of them based in the UK. Over 6,000 users access its systems on a daily basis. "Our flagship offering is our hosted virtual desktop product," Chetnik explained. "It's an end-to-end solution where we host everything for the client so they don't have to buy any infrastructure or manage services on-site. We provide everything from email, to applications, data, and document management systems — basically anything the client requires."

IT and Business Challenges

HDUK launched its hosted virtual desktop service in 2010, using Dell PowerVault storage and the Microsoft Hyper-V virtualisation environment. After about 12 to 18 months, customer demand for the VDI service was so high that they required a more powerful storage solution.

"There were three areas we wanted to improve with the upgraded system," noted Chetnik. "The first was better performance, so we could keep up with our company growth. The second area was snapshots. We keep over 12 months of customer snapshots on our systems. With EqualLogic, that meant that we had to have a separate rack of storage because they used up so much space. The third criteria, which was more of a long-term goal, was the ability to implement SAN to SAN replication. We had been using Veeam to replicate data from the Dell storage to our disaster recovery (DR) centre, but Veeam was struggling to keep up with demand. Since our data usage was going up exponentially, we had to find a better way to do replication."

Looking at the Alternatives

"We weren't able to meet our growing performance requirements with our Dell storage systems," Chetnik said. "Luckily, one of our colleagues suggested we look at Nimble, 'the new kid on the block', to see what they could offer. We spoke to our Nimble sales rep in the UK, and liked what we heard. It was clear that Nimble could provide better performance, efficient data protection, and the ability to do SAN to SAN replication. Moving to Nimble was an easy decision from an IT perspective."

HDUK decided against running a POC before they purchased the first Nimble array. "We believed what the Nimble UK salesman was telling us, so we just bought the array and plugged it in," Chetnik reported. "He guaranteed us 20,000 IOPS. The Nimble array easily surpassed all of our expectations, and we never looked back."

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Adam Chetnik
Managing Director
Hosted Desktop UK Limited

Embracing Nimble Storage

HDUK now has three Nimble arrays. They started by purchasing a Nimble CS260G with a shelf for the company's primary data centre. A few months later, Chetnik decided to upgrade the CS260G to a CS460G with two shelves. HDUK now has two additional CS210 arrays at the company's DR centre, each with an extra shelf. They are replicating all data from the one primary CS460 to the two CS210s, which show up as one group from a management perspective.

"It didn't take long at all to set up the Nimble array," Chetnik reported. "It was racked and running within 24 hours. We are now migrating everything off of the Dell to Nimble. When the migration is complete, we will have 60TB of live data for our 650 clients on the Nimble CS460G."

Improving DR with Space-Efficient Nimble Snapshots

HDUK has been using its Nimble storage arrays for over a year now. "We use Nimble for SAN to SAN replication," Chetnik stated. "We back up 54TB of data from our CS460s to our CS210s every hour to our DR data centre using Nimble snapshots. We also take 480 snapshots every 24 hours."

Since Nimble's CASL architecture has compression built-in, HDUK is able to get twice the storage capacity from the same footprint by using the Nimble snapshots. "With Nimble, we can now offer our customers longer retention options," noted Chetnik. "The standard is a five-day backup, but if the clients want more, we can provide daily, weekly, and monthly backups. We couldn't offer that level of retention before, because Dell's snapshots are so large. With the space-efficient Nimble snapshots, we have been able to increase our product portfolio that we offer to our customers, resulting in more revenue for our organisation and longer retention periods for our clients."

Better Performance

"The Nimble arrays have scored greatly for us in the performance category," noted Chetnik. "When we were looking at upgrading our storage about 12 months ago, we briefly considered buying more EqualLogic units. Dell told us we could get about 3,500 IOPS from each box, which totals about 14,000 IOPS for the four units we would need. But from day one, we got 20,000 IOPS from just one Nimble CS260 arrays. And now that we have upgraded that unit to the CS460, we are getting about 40,000 IOPS. That's roughly an 8x increase in performance. Over the last 30 days, our systems have handled 159,900 logins to our hosted desktop systems. We can only do that because of the high performance we get with Nimble Storage."

The performance increase also translated into a significant jump in user satisfaction. "Our user base immediately noticed the increase in performance," said Chetnik. "They are now able to get much more work done and are performing their jobs more efficiently. Our customer support and satisfaction ratios went up immediately after migrating to Nimble, and are continuing to improve each month."

Easy Upgrades

The Nimble arrays were also very easy to upgrade, according to Chetnik. "Adding shelves has been nearly effortless. We simply rack them, plug-in the SAS (serial attached SCSI) and power cables, and then click 'activate'. It's as simple as that. To add capacity to the Dell, we had to completely remove the head units, set up the networking, set up the pools of storage, and a few other complex steps. It always took several hours of work. With Nimble, upgrades take just seconds."

Using Nimble InfoSight

The HDUK IT team relies on InfoSight to monitor the Nimble storage arrays. "InfoSight has been a very useful tool for our IT team," said Chetnik. "No other storage platform provides that level of insight. Dell certainly doesn't. It was extremely difficult to find out how our Dell arrays were performing using their management program. It didn't give us very much information at all. Whereas with Nimble InfoSight, we can see in detail the amount of cache churn, who is demanding more resources, what LUNs are busier than others, and many more statistics. With InfoSight, we can dive into the data quite easily and thoroughly for a holistic view of our storage environment."

Summary

"Moving to Nimble was one of the smartest IT moves we've made," concluded Chetnik. "Not only does Nimble provide better performance, efficient data protection, and the ability to do SAN to SAN replication — it's the easiest storage platform I have ever managed. We bought our arrays merely on the promises of the UK sales rep. After more than a year of using Nimble, I can report back that our sales rep definitely under-promised and over-delivered!"