QX increases productivity and IT performance with Nutanix Files

With Nutanix Files, QX Global Group gains a scale-out file server architecture for growth while raising staff productivity with faster access to data

BUSINESS BENEFIT

QX Global Services LLP (QX) found its legacy standalone network attached storage (NAS) solution wasn't keeping pace with business growth. Despite adding more NAS boxes, the solution couldn't scale as needed nor deliver the speed to satisfy busy workers. After overhauling the legacy setup and moving to a software-defined scale-out file storage solution from Nutanix, QX got file serving back-on-track.

With Nutanix Files as part of a Nutanix hyper-converged infrastructure, file storage can scale to billions of files without any loss of performance. Rather than packing the data center with more hardware to meet

> "Moving from standalone NAS storage to a software-defined solution for files from Nutanix was a great decision. We fixed our scaling issues overnight and started providing access to files at speeds staff had never seen before."

– Hitesh Samvedi, Senior Vice President of Systems and Network, QX Global Services LLP

INDUSTRY
IT/ITES

BENEFITS

- Files open 10x quicker
- Scale-out architecture for billions of files
- IT efficiency increases 50%
- Mail processing more than 95% faster
- Data available in a fraction of a second
- Zero downtime, 30% power savings
- Server provisioning 90% faster

SOLUTIONS

- Nutanix AHV
- Nutanix Prism management software
- Nutanix Files

APPLICATIONS

- File servers
- Human Resources Management System
- Enterprise Windows based mailing solution
- Microsoft SQL Server database

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growth, the IT team simply adds compute and memory to the Nutanix stack. IT is now 50 percent more efficient and power usage has dropped 30 percent. Better still, workers are opening files 10 times faster and data is available in a fraction of second to help them meet their work targets. Processing mail queues is 95 percent quicker and thanks to Nutanix virtualization, the IT team can spin up new virtual machines in 90 percent less time than in the past.

CHALLENGE

QX Global Services LLP (QX) specializes in providing business processing outsourcing (BPO) and knowledge process outsourcing (KPO) services to hundreds of businesses. The company's broad range of offerings covers finance, accounting, recruitment, payroll, business transformation, marketing, corporate advisory, and IT. QX employs more than 1,300 staff across its delivery centers in India, as well as offices in the UK and the US.

It's not through luck that QX works with 6 out of the top 10 healthcare staffing firms in the UK and European Union region. Nor that the largest network of franchise accounts in the UK use QX's services along with more than 70 certified public accounting firms in the US. They all work with QX because of the quality of its services and the professionalism of its staff. "We're totally committed to our customers," says Hitesh Samvedi, Senior Vice President of Systems and Network at QX. "Quality and excellence are our governing principles, and we've demonstrated our services can reduce back office costs, optimize internal processes, and accelerate business transformation for our clients."

This commitment has earned its rewards—and in three years staffing has grown by 300 percent to keep up with business growth. Expansion had its hurdles, though, and in 2017 QX found an increase in data— particularly the unstructured kind—created a serious challenge. "There was an eight-fold increase in data from spreadsheet and document files, emails, and PDFs. We doubled up on our NAS [network attached storage] boxes—but we couldn't scale fast enough. Plus, the SATA drives lacked speed; staff could wait up to 30 seconds to open a file," says Samvedi.

There was the risk of the situation impacting productivity. "You can imagine how everyone wanted the situation to change," says Samvedi. "If the HR team sent out mass emails with large-sized attachments, of say 3MB [megabytes], to our employees, it could take up to 20 minutes to process the mail queue. We needed a solution to our storage fast."

SOLUTION

QX approached the incumbent provider but the two solutions put on the table either lacked IOPs and network connectivity or were too costly. "One gigabit of throughput wasn't going to be enough, and we didn't need all-flash storage," says Samvedi. "We wanted a tiered solution that made better business sense."

Seeking alternatives, QX engaged Nutanix. "We were looking for a storage box at first," remembers Samvedi, "but we soon identified Nutanix, with its 10-gigabit throughput, as a solution that could also meet our virtualization requirements. The use cases for Nutanix increased from there, and we began to look at the systems we could migrate to Nutanix, including our Microsoft SQL Server database." When Samvedi ran the numbers, he saw that three nodes of Nutanix with two top-of-rack switches would be 10 percent more cost

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effective than a comparable Dell EMC Unity solution and 60 percent more cost effective than a VMware vSAN implementation.

Initially, QX migrated file data from the legacy storage boxes to Nutanix Files. "We created a blend of solid-state drives and SATA drives so "hot" data that gets read and written to the most is instantly available," says Samvedi. "The "cooler" data that we need for our records sits on the SATA tier. It's a great mix, and we can add more solid-state or SATA as the need arises."

By 2018, the company had added another node and began migrating servers to the Nutanix hyper-converged infrastructure (HCI). Today, it has a total of four nodes and is using HYCU for Nutanix to backup data. "With Nutanix AHV as the hypervisor and Nutanix Prism as the management plane, we have an enterprise-grade virtualization technology as well as a control monitoring and management interface that makes hypervisor and workload administration easy."

Today, besides storage, the company has more than 25 servers running on the platform. These include multiple customer-facing terminal servers, and a Linux based mail server used across the entire organization. It also includes the Microsoft SQL Server database, providing the backend to multiple applications, including a human resources management system (HRMS).

CUSTOMER OUTCOME
Files open 10x quicker, scales out to billions of files
"No-one waits 30 seconds for a file to open anymore," says Samvedi. "The longest they'll wait is maybe three seconds." The great news is productivity is easier to maintain and staff can thrive with a supportive IT infrastructure behind them. "The efficiency of staff processing high volumes of emails has increased by 15 percent with Nutanix Files," Samvedi confirms. What's more, Samvedi knows the Nutanix solution can support business expansion to billions of files. "The days of buying storage boxes are over," he says. "When we need more capacity, we add more compute and memory to our virtual file server machines."

Mail processing more than 95% faster, data available in a fraction of a second
If the HR team sends out an email of 3MB, for example, to employees, the mail queue takes less than one minute to process instead of 20. The same HR team has also seen a significant improvement in the performance of its HRMS platform because data retrieval is noticeably faster with the database running on Nutanix. Comments Samvedi, "Now, if a member of the team wants to pull up the leave records of an employee, it's a fraction of a second when it could have been 4-5 seconds in the past. Staff feel better supported."

IT efficiency increases 50%
With Nutanix, QX has improved the efficiency of its IT with storage and servers running on an HCI. Manual operations around administration are either automated or made simpler through Nutanix Prism. Indeed, fewer IT staff need to work on infrastructure management and can focus on higher-value tasks such as capacity planning. "We reduced infrastructure support by around 50 percent to focus more resource on strategic work," says Samvedi.

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Zero downtime, 30% power savings
With all servers now virtualized on Nutanix, QX is maximizing uptimes. "We no longer have to plan for server downtime or performance drag when we apply patches or updates because workloads can be moved between nodes," says Samvedi. "We have virtualized all our physical servers without incurring any cost on hypervisor, plus we've seen a 30 percent drop in the load on the UPS [uninterrupted power supply]—reducing operational costs."

Server provisioning 90% faster
The move to virtualization has enabled QX to overcome the long procurement cycles that companies with traditional infrastructures face. A single Nutanix node can support multiple virtual servers and launching a virtual server is significantly quicker. "Our server provisioning time is 90 percent faster with Nutanix. A request comes in for a new service or we need to scale an existing one and we spin up a virtual server, connect the storage and networking and off we go. We are a lot more agile," says Samvedi.

NEXT STEPS
QX plans to add more nodes to the Nutanix HCI as the business grows and the need for more servers and performance increases. The company will consider Nutanix Flow to automate common networking operations, delivering advanced application-centric protection against cyber threats. Adds Samvedi, "Our goal is also to use the analytical capabilities of Nutanix to gain more insight into our operations."

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