

Stockport NHS Foundation Trust accelerates application performance by 20x with Cisco HyperFlex and Cisco ACI

Size: 5000 employees · Industry: Healthcare · Location: Stockport, England

Stockport NHS Foundation Trust provides hospital care and health services for children and adults in Stockport and the surrounding areas of England. The trust sees half a million patients each year at its Stepping Hill Hospital and also operates the Devonshire Centre for Neuro-rehabilitation, the Swanbourne Gardens Respite Centre, and 24 regional health clinics. For more information, visit stockport.nhs.uk.



Challenges

- Modernise and standardise data centre infrastructure
- Reduce technology complexity and costs
- Improve mission-critical application performance

Solutions

- Cisco® HyperFlex™ Hyperconverged Infrastructure (HCI)
- Cisco Application Centric Infrastructure (Cisco ACI™)
- Cisco Intersight™ SaaS Systems Management Platform

Results

- Accelerated application performance by 20x
- Reduced support and licensing costs by nearly £100,000 per year
- Increased data centre security, scalability, and flexibility

For more information

- [Cisco HyperFlex](#)
- [Cisco ACI](#)
- [Cisco Intersight](#)

Challenge: Simplify and standardise IT infrastructure and operations

It is said that new cars begin to lose value the moment they are purchased. Many IT teams have had similar experiences with their data centre systems, reaching an apex of capability, capacity, and value on Day One that is followed by a five-year march toward end-of-life status.

And yet the IT leaders at Stockport NHS, who installed a combination of Cisco HyperFlex and Cisco ACI a year ago, believe they are just beginning to realise the full value of their new data centre infrastructure.

“We’re already experiencing a wealth of benefits, but we’ll see more as we move forward,” says Peter Hughes, head of IT at Stockport NHS. “The value of Cisco HyperFlex and Cisco ACI continues to increase over time.”

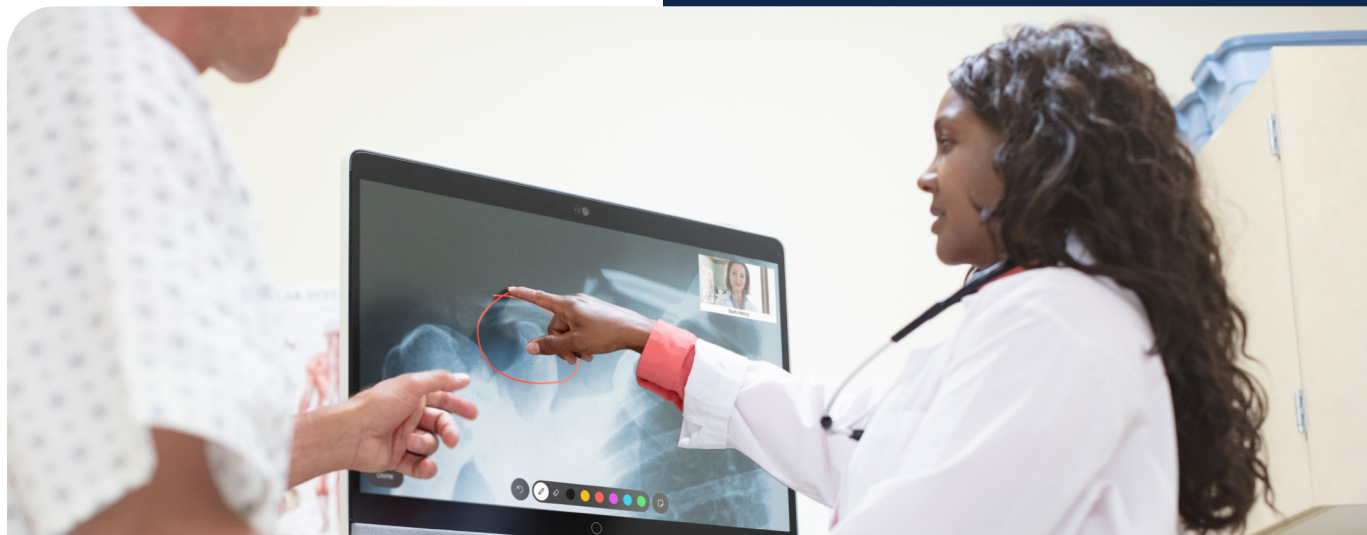
Stockport NHS used to deploy dedicated servers for specific applications and devices. But with those applications and devices spread across three hospitals and two dozen health clinics, the diversity of technologies and resulting administrative burden became untenable for a lean, centralised IT staff.

“We had different vendors for storage, servers, and backup, and when we had problems, the vendors would start pointing fingers at each other,” recalls Hugh Hughes, network and unified communications lead at Stockport NHS. “We wanted to bring all of our technologies back in-house to simplify and standardise our IT operations and reduce our support costs.”

Getting a hyperconverged infrastructure (HCI) platform, software-defined network (SDN), and ongoing support from a single provider has done just that. According to Peter Hughes and Hugh Hughes, who are not related, vendor consolidation has reduced the trust’s support and licensing costs by nearly £100,000 a year. And Stockport NHS has better performance, flexibility, and security in its data centres than ever before.

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Peter Hughes
Head of IT, Stockport NHS



Accelerating life-critical applications

Two Cisco HyperFlex clusters are stretched across the trust's two data centres. Those clusters are tightly integrated with a backup, archiving, and file storage solution powered by Cisco UCS servers and Cohesity software, providing synchronous replication, continuous backups, and seamless failover. What's more, the clusters are optimised for specific workloads. One is dedicated to and tightly aligned with Stockport NHS' VMware environment. The other is a high-density cluster that has been fine-tuned for Microsoft SQL Server databases.

"Our SQL workloads aren't just mission critical, they're life critical," says Peter Hughes, noting the wide variety of clinical applications and devices the databases support. "With all-flash storage, Cisco HyperFlex has given us a 20x performance improvement without increasing our SQL licensing costs."

The entire environment is orchestrated centrally with a combination of Cisco Intersight and the Cisco ACI Application Policy Infrastructure Controller (APIC). The tightly integrated tools provide visibility and policy-based automation across the infrastructure.

"When you have disparate systems and too many management tools, there can be problems with backups, integrations, and licensing," says Hugh Hughes. "We don't have those problems anymore."

Instead, Stockport NHS has a standardised, simplified data centre infrastructure that can be extended to additional sites as well as the public cloud with Cisco ACI.

"Cisco ACI gives us a high-speed network fabric across our two data centres and a policy-based on-ramp to the cloud," says Hugh Hughes. "It allows us to place our workloads anywhere, improve our access and security posture with microsegmentation, and extend the standardisation we've implemented in our data centres."

Those capabilities were vital in helping Stockport NHS adapt to the global pandemic. The programmability and scalability of Cisco HyperFlex and Cisco ACI enabled the trust to quickly expand its virtual private network (VPN) with additional compute capacity to support remote workers.

"We used to configure our data centres," says Peter Hughes, "but now we're programming them."

And they're not done yet. The Stockport NHS IT team is preparing to add policy-driven microsegmentation, multitenancy, and assurance to the trust's data centre environment. They will extend that environment to Stockport NHS hospital campuses and clinics using a combination of Cisco ACI, Cisco Meraki, and Cisco DNA solutions. And they can scale the environment on-premises or in the cloud as needed, delivering an end-to-end, intent-based network infrastructure across multiple domains.

"We don't have a say in clinical applications or devices, and NHS requirements and priorities are sometimes a moving target," says Peter Hughes. "But we know we have the right data centre infrastructure in place, and we know we'll get more out of it in the months and years ahead."

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