

# PENNINE ACUTE HOSPITALS NHS TRUST

Pennine Acute Hospitals NHS Trust invests £5m to upgrade IT infrastructure, refreshing its EUC estate using IGEL



## Northern Care Alliance NHS Group

Pennine Acute Hospitals NHS Trust has updated its end-user computing (EUC) environment, implementing IGEL OS and UD3 endpoints throughout the organisation.

This is part of a £5 million investment the Trust is making to replace and refresh its entire IT infrastructure including compute, storage, WAN/LAN network and thin client platforms. This significant upgrade project is putting in place modern, class-leading technology to support the Trust, provide high quality clinical care and services for around 820,000 local residents.

Located in the Northeast of Manchester, Pennine Acute Hospitals serves the communities of Bury, Rochdale and Oldham along with surrounding towns and villages. Employing 10,000 staff, it operates four hospitals: Fairfield General Hospital, North Manchester General Hospital, Royal Oldham Hospital and Rochdale Infirmary.



Photo: NHS

” For the flexibility and portability the IGEL OS offers which is a key reason for our purchase, the costs are reasonable and IGEL are competitive with their pricing.”

~ **Jav Yaqub**  
Head of Infrastructure,  
Pennine Acute Hospitals NHS Trust

### THE CUSTOMER

Pennine Acute Hospitals is located in the northeast area of Manchester and serves the communities of Bury, Rochdale and Oldham along with surrounding towns and villages.

Employing 10,000 staff, it operates four hospitals: Fairfield General Hospital, North Manchester General Hospital, Royal Oldham Hospital and Rochdale Infirmary.

### THE CHALLENGE

Pennine Acute Hospital’s existing thin client solution was a decade old, over 2,000 hardware devices were end-of-life and it had a requirement to expand the use of VDI and thin clients across the organisation. To complicate matters, the devices couldn’t be easily controlled because its server-based management software was not up-to-date.

The Trust was therefore consuming a vast amount of time trying to run its EUC environment, with major platform mismatches hindering its ability to roll out new operating systems like Windows 10 or deploy Office 365 which was crucial as NHS Digital has mandated that Windows 7 be removed from all desktops.

### THE SOLUTION

IGEL OS - used to convert and repurpose thin client devices a decade old

IGEL Cloud Gateway

IGEL Universal Management Suite (UMS)

VMware Horizon

### THE BENEFITS

£500,000 saved as the Trust has avoided buying 2,000 new thin client devices

IGEL OS has vastly improved the reliability of desktop and trolley-based computers in hospital wards

IGEL UMS makes the day-to-day management and updating of all endpoints easy with just one person managing the whole of the Trust’s EUC estate

The local care ecosystem has been joined up with IGEL-OS powered endpoints provided to five external community care providers

Work from home in the light of COVID-19 delivered quickly given the use of VDI

As part of the overall project, the necessity to change the EUC platform was pressing. Pennine Acute Hospital's existing thin client solution was already a decade old, over 2,000 hardware devices were end-of-life and no longer supported; and it had a requirement to expand the use of virtual desktop infrastructure (VDI) and thin clients across the organisation. To complicate matters, the devices couldn't be centrally or easily controlled because the server-based management software was not up-to-date.

Jav Yaqub, the Trust's head of infrastructure, explains, "The upshot was we were consuming a huge amount of time trying to maintain and run our thin client desktops, with major platform mismatches hindering our ability to roll out new operating systems like Windows 10 or deploy Office 365, which was crucial as NHS Digital has mandated that Windows 7 be removed from all desktops."

After a successful trial, the decision was made to select IGEL for the new EUC solution. In tandem, the Trust updated its entire compute systems in its datacentre installing a Dell EMC VxRail hyperconverged infrastructure platform as well as Dell EMC network attached Isilon, Data Domain and ECS storage.

The new VxRail compute platform is also used to host VMware Horizon - the Trust's VDI solution - with 3,000 IGEL OS licenses and 500 new IGEL UD3 endpoints purchased, along with IGEL's management software, the Universal Management Suite (UMS). IGEL Cloud Gateway was acquired to centrally manage endpoints not on the corporate network. Furthermore, NVIDIA virtual GPU technology is being trailed within the VxRail environment to share graphics power and capability across the VDI estate.

### **IGEL OS DELIVER SIGNIFICANT OPERATIONAL AND FINANCIAL ADVANTAGES**

The move to IGEL OS and UD3 thin client endpoints is already delivering substantial benefits:

**Budget saved.** £500,000 has been saved as the Trust has avoided buying 2,000 new thin client devices for the organisation. Despite being told they were end-of-life, many of the old endpoints from the previous incumbent supplier have been recycled - converted using the IGEL OS into centrally controlled devices. Yaqub says, "For the flexibility and portability the IGEL OS offers which is a key reason for our purchase, the costs are reasonable and IGEL are competitive with their pricing."

**Reliability improved.** Most thin client devices at the Trust are used at workstations in hospital wards and on 100 laptop trollies which nurses and other health professionals use in various clinical settings. IGEL OS has vastly improved the reliability and performance of these trolley machines given that IGEL OS is much 'lighter' - at 1GB - rather than the Windows OS which is typically 16 GB in size.

**Implementation simple.** Roll out was easy and fast with the Trust supported by third party consultants who helped install IGEL OS and convert devices - a re-flashing process which took just minutes. Yaqub says, "It was very much a non-event. It was easy, with no significant problems, as IGEL support has been excellent."

Management straightforward. Using IGEL's Universal Management Suite (UMS) makes the day-to-day management of the whole estate of 2,000 thin clients located across four geographically dispersed hospital sites really straightforward. Just one person now handles this for the whole organisation as part of their overall job role. IGEL specific training was provided allowing policies and security settings to be created and pushed out automatically to all devices.

The local care ecosystem joined up. The Trust has also connected five local community care providers to its VDI environment. They use an IGEL-OS powered endpoint to view its electronic patient records (EPR) system. Partners access the EPR via VMware Horizon - with IGEL Cloud Gateway used to manage remote devices - so that patient care is available anywhere across the local community.

Remote work capability delivered quickly in light of Covid. The Trust has been able to easily ramp up remote access capability to empower staff to work from home during the Coronavirus pandemic. Prior to the COVID-19 outbreak, 600-700 staff did so but this was increased to 3,000 in just three weeks. Staff login to their VDI session via a standard browser which takes them to their Trust branded Windows 10 desktop. Imprivata is used to enable single sign-on to specific applications.

Yaqub says, "The infrastructure update project has been hard work. We've done about four years work in just two with staff now commenting that they've seen big improvements in system performance, speed, flexibility and the IT teams' ability to deliver. This makes all the graft worthwhile and rewarding, and IGEL has played an important part in enabling this."

Moving forward, Pennine Acute Trust is reviewing how it can increase the scope of VDI and thin client usage within the organisation. Using the IGEL OS, the goal is to convert more desktop devices in other departments like estates and finance into locked down, centrally controlled and secure endpoints.

The IT team is also working on a proof of concept within the radiology specialty to capitalise on the graphics capability of the new backend infrastructure. This could allow radiologists working internationally to access its systems using VDI and powerful multimedia IGEL endpoints - rather than expensive laptops being provided - to review and study MRI and X-ray scans to aid with patient illness diagnosis and treatment.

Simon Townsend, IGEL's chief marketing officer says, "Ultimately technology in the health service is all about delivering better patient care. As an IT provider, we have our part to play in this so that clinicians and other health professionals have high performance, reliable desktop solutions offering them the very best user experience. That's what the IGEL OS running on any endpoint hardware is designed to do."

  
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