

Case Study

Healthcare
Remote Management



How the Intel vPro® platform is helping to transform frontline care during COVID-19

University Hospitals Bristol and Weston NHS Foundation Trust (UHBW) is leading the way in digital transformation with a major Intel vPro® platform roll-out

Rhys Wathan, Account Executive for Intel UK Health & Life Sciences

Chris Brett, PC Support Technician at University Hospitals Bristol and Weston NHS Foundation Trust

“An absolute game-changer during the COVID-19 pandemic”. That was the verdict on the Intel vPro® platform from Chris Brett who, in his role as PC Support Technician at University Hospitals Bristol and Weston NHS Foundation Trust (UHBW), is responsible for providing the organisation with access to the technology they need to help fight the global pandemic.

Chris oversaw UHBW's upgrade to Intel vPro technology in early 2020 as COVID-19 took hold, and he credits it with transforming the technological approach to the unprecedented outbreak: “We were in the process of a major upgrade and then COVID-19 hit us. The Intel vPro platform has been right at the heart of our response ever since.”

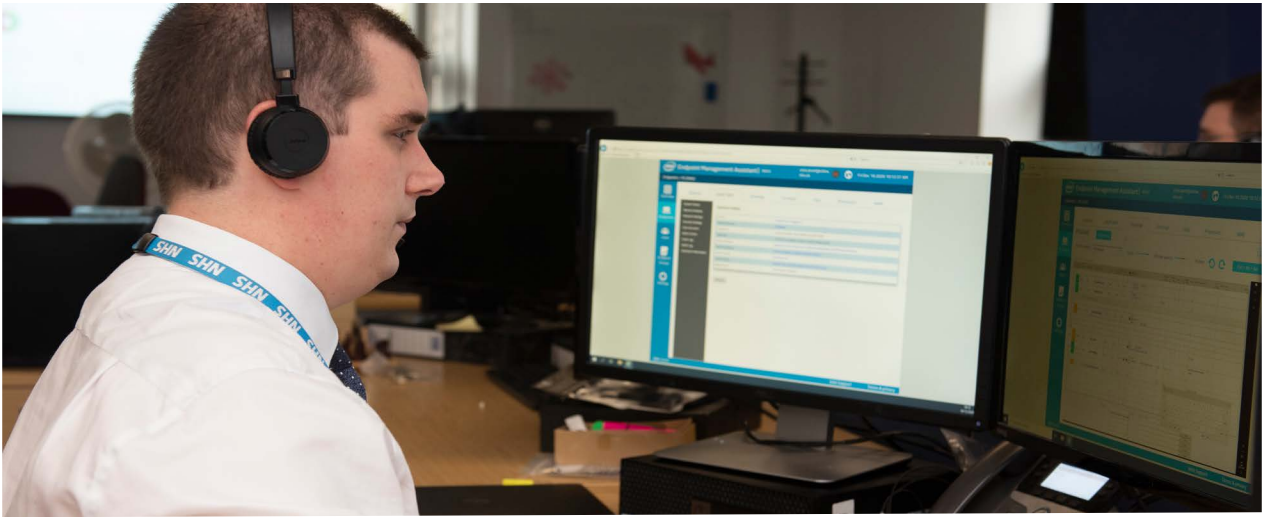
Shifting to Intel vPro technology is part of the pioneering digital strategy that has placed UHBW at the forefront of digital transformation among NHS Trusts. Built for business, the Intel vPro platform delivers capabilities that transform computing endpoints into more trustworthy and well-maintained productivity tools. One of the most compelling features in healthcare is its remote management capabilities – something which has become even more crucial during the battle against the COVID-19 virus.



BUILT FOR BUSINESS



“In the past there have been cases where, for example, the nurse has struggled to handle the PCs whilst juggling the demands of frontline healthcare,” says Brett. “One of the great things with Intel vPro technology is that we’re able to actually remotely power up the PC for them. The fact that we are able to physically do everything that we could to the PC as if we were sat in front of it really is game-changing.”



This level of support is possible thanks to Intel® Active Management Technology as part of the Intel vPro platform and Intel® Endpoint Management Assistant (EMA) which is one of the free tools made available by Intel. This technology enables device management on and off the corporate network, wired and wirelessly, and gives remote and more secure hardware-level access to every end-point device, even if the device is powered off or the operating system is not functioning properly. It is available in Intel vPro platform branded systems including desktops, all-in-ones, laptops and even in devices such as digital signs and kiosks.

“In the healthcare environment we know that Intel vPro technology can make a huge difference, helping to deliver fundamental benefits,” said Rhys Wathan, Account Executive for Intel UK Health & Life Sciences. “From small clinics to large hospitals, this technology can support a more seamless way of working across multiple NHS sites with differing needs.”

Among its many real-world benefits, the Intel vPro platform works with existing systems to provide a critical boost to remote management capabilities. Having to attend IT issues on site in a healthcare setting with rigorous cleanliness standards is a major pain point for IT teams. Often, they are only allowed access when there are no patients or medical staff present. “The slower their response, the longer a vital location might be out of action, whether that’s an operating theatre or a clinic, which could potentially have a serious impact on patient outcomes,” added Intel’s Wathan. “The platform’s remote management capabilities enable IT support technicians to give a more rapid response, meaning less downtime.”

Minimising downtime can also have a positive impact on costs. As well as helping the IT team to respond more quickly, Intel vPro technology enables NHS Trust IT teams to make crucial time and cost savings. On-site visits can be especially costly, especially if IT staff have to attend outside of normal business hours. By negating the need for these, this technology acts as an efficient and low-cost resource for the NHS.

Intel has a dedicated Health & Life Sciences team whose role is to ensure that partners and customers are aware of the latest technology and how to get the best out of it. By tapping into the relevant expertise across the Intel ecosystem, the Health & Life Sciences team can draw on a range of key capabilities to support NHS Trusts with their business and technology challenges. In this particular case this means ongoing engagement between both parties and specific deployment aid so that UHBW can adopt the Intel vPro platform and adapt to using it in the most seamless and efficient way possible.

Intel vPro technology is an important element of the UHBW’s wider digital transformation strategy. Formed in April 2020 following the merger of University Hospitals Bristol NHS Foundation Trust and Weston Area Health NHS Trust, UHBW has 13,000 NHS staff delivering clinical care to a core population of more than 500,000 people in Bristol, Weston and the South West¹. One of 217 NHS Trusts² in the UK, UHBW had already begun a gradual shift towards Intel vPro technology before the pandemic hit, with the first major deployment lined up and ready to go in February. Unsurprisingly, the roll-out was put on hold for a short time while priority was given to upscaling remote working and other urgent tasks. As a result, the deployment happened in mid-2020 with more than 200 Intel vPro technology-powered devices now deployed across multiple sites.

The initial roll-out included operating theatres at the Bristol Royal Infirmary (BRI) and Bristol Royal Hospital for Children (BRHC) plus three laboratories at BRI, Bristol Haematology and Oncology Centre (BHOC), and Radiopharmacy. This deployment also included Intensive Care Units (ICUs) at BRI, BRCH, Bristol Heart Institute (BHI) and St Michael’s Hospital (STMH). With more form factors of PC available than before, UHBW is able to be more flexible with PC placement.

¹ University Hospitals Bristol and Weston NHS Foundation Trust: <https://www.nhs.uk/Services/Trusts/Overview/DefaultView.aspx?id=130>

² NHS Providers, Confronting Coronavirus in the UK: <https://nhsproviders.org/confronting-coronavirus-in-the-nhs/foreword>



For example, they can be hidden behind display screens on the wall, negating the need for a large and cumbersome wall-mounted box. With Intel vPro technology-powered display screens in meeting rooms, the IT team can respond to urgent requests and are able to give a rapid response remotely.

“We’ve got display screens running Intel vPro technology at central doctors’ and nurses’ stations so that they can see an instant overview of all the beds and the stats that they need,” explains Brett. “That means they don’t have to go to each bedside to see the PC showing the individual stats for each patient – they can see it all one place so that they know immediately where a response is needed.”

Arguably, remote management has never been more critical than in the middle of pandemic. And although other solutions have been used in the past, Intel vPro technology is integrated at a hardware level. “While we’ve always had an ability to remotely control machines using software-based products, they had certain requirements,” explains Simon Jones, Head of Support Services at UHBW. “They required the operating system and needed to have certain things running. So what Intel vPro technology has done for us is essentially plug that hole where a machine had fallen into a particular state. Previously, we would literally have had to go out and pick up the machine, reboot it manually and deal with any issues before physically taking it back. With Intel vPro, we can completely re-image a machine and get it back to a working state remotely.”

The convenience offered by Intel vPro platform’s hardware-level remote management capabilities is clearly a very powerful benefit for UHBW. The second key benefit of this robust remote management is that it strips away the need for IT support staff to mix with medical staff and patients. Even pre-COVID-19, this was already relevant for certain areas, such as ICU or labs with restricted access, where Personal Protective Equipment (PPE) was required. And since the pandemic hit, the need to reduce the risk of spreading the virus has inevitably become a priority in all healthcare settings. Electronic observa-

tion systems in UHBW’s ICU units were previously overseen by Medical Equipment Management Organisation (MEMO) but are now looked after by the Information Management & Technology (IM&T) team. This means that contact can be kept to a bare minimum as the newer Intel vPro platform-based systems can be effectively managed without an IT engineer visit.

UHBW is no stranger to innovation and is something of a trailblazer in digital transformation. UHBW was chosen to be a Global Digital Exemplar (GDE) as part of an NHS programme to recognise some of the more digitally mature NHS Trusts. These NHS Trusts are awarded funding to help them accelerate the rest of their digital transformation journey. GDEs are internationally recognised NHS providers that deliver improvements in the quality of care, through world-class use of digital technologies and information.

There are currently 17 NHS Trusts in the GDE programme and the idea is that they share their learning and experiences to enable other NHS Trusts to follow in their footsteps as seamlessly as possible. As a GDE, UHBW creates system-specific blueprints that are shared with other NHS Trusts to help accelerate their digital transformation and ultimately, save lives. “As a GDE, we can really be a pioneer for other NHS Trusts, and help pave the way,” says Jones. “In the GDE programme we’re partnered with ‘Fast Follower’ Trusts that can look at what we’ve done and learn from our mistakes to help them on digitalisation journey. Our Fast Followers include the Whittington Health NHS Trust in London.”

The GDE programme is all part of the NHS’s long-term digitalisation plan. In 2019, NHSX was formed to accelerate the widespread adoption of digital technology. NHSX aims to develop best practice and create an overarching IT strategy, something that has been split across multiple agencies in the past. The hope is that this shift towards digital across the NHS will help to diagnose diseases earlier, free up staff time and empower patients to take greater care of their own

healthcare.

Adopting technologies like the Intel vPro platform is an important part of digital transformation in the NHS, and the pioneering spirit at UHBW is helping to lead the way. In many cases, the best use of technology is when you don't even notice it's there – and during a global pandemic this is more important than ever. Powered by Intel vPro technology, the IT systems in ICUs and other critical departments become 'invisible', allowing the highly skilled clinical teams to do their vitally important and challenging work.

"We're proud that our technology can play an important role in supporting frontline NHS teams in life-saving situations," concluded Intel's Wathan. "Along with remote management for IT teams, Intel vPro offers stability, security and powerful performance. Using the full range of tools, Intel vPro enables IT teams to deal with the challenges presented by COVID-19 and will continue to help them to support the clinical workforce in future. As a leading force in digital transformation, UHBW is a perfect example of how the Intel vPro platform can help NHS Trusts to support the increasingly digital workplace during a particularly challenging time."

For more information

Intel's COVID-19 Response: <https://intel.co.uk/covid19>

Intel vPro® Platform: <http://intel.co.uk/vpro>

Sources

- 1) University Hospitals Bristol and Weston NHS Foundation Trust: <https://www.nhs.uk/Services/Trusts/Overview/DefaultView.aspx?id=130>
- 2) NHS Providers, Confronting Coronavirus in the UK: <https://nhsproviders.org/confronting-coronavirus-in-the-nhs/foreword>

Image Credits

- 1) Lucy Wilmer, Medical Illustration department, UHBW
- 2) Lucy Wilmer, Medical Illustration department, UHBW
- 3) Alice Kenny, Medical Illustration department, UHBW



* Notices & Disclaimers

Intel does not control or audit third-party data. You should consult other sources to evaluate accuracy.

Intel technologies may require enabled hardware, software or service activation.

No product or component can be absolutely secure.

Your costs and results may vary.

© Intel Corporation. Intel, the Intel logo, and other Intel marks are trademarks of Intel Corporation or its subsidiaries. Other names and brands may be claimed as the property of others.