Creative ITC | VDIPOD

MEDICAL-GRADE VDI EMERGES AS KEY HEALTHCARE ENABLER IN THE NEW NORMAL

Currently working with:

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NHS
Royal Surrey County Hospital
NHS Foundation Trust

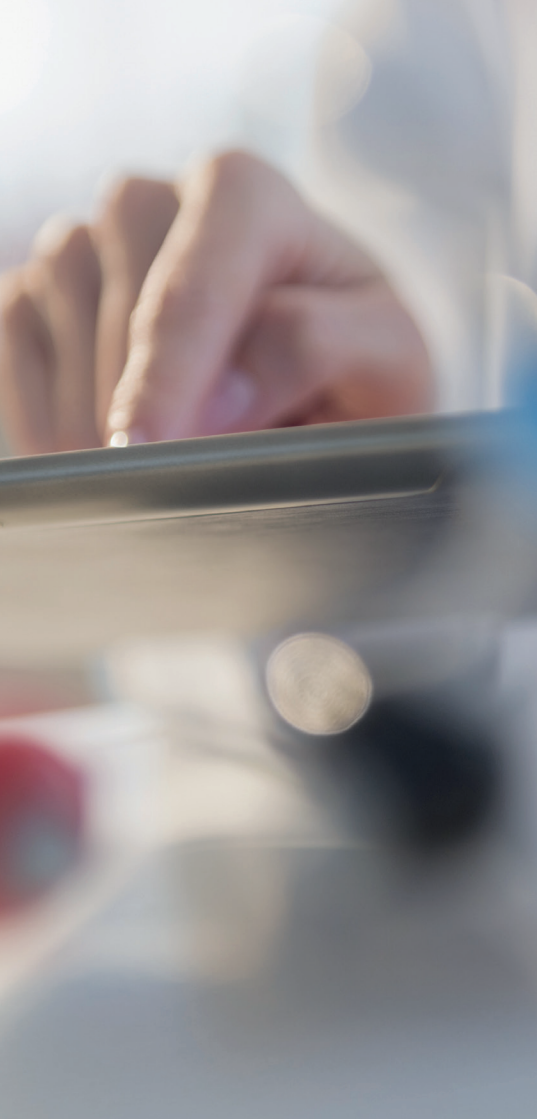
NHS
Worcestershire Acute Hospitals
NHS Trust

Consultant Vascular & Interventional Radiologist at Worcestershire Acute Hospitals NHS Trust

"Working with Creative ITC has been transformative on many levels. By providing us with VDIPOD for Healthcare, they empowered our team of Radiologists to carry out home reporting from the comfort of their own home, with the same speed and efficiency as if they were in the hospital. With the pressure increasing during the pandemic, Creative ITC proved to be an exceptionally reliable partner not only by providing cost efficiency but also by pulling out all the stops to ensure solution is delivered within the agreed timescales. Now, our team of Radiologists can perform image interpretation from home using an identical three-screen setup which also allows access to other key clinical applications such as Orders & Results and Electronic Document Management solutions. Unlike before we have around-the-clock technical support, so if they need to change work schedules, or respond to an emergency in the middle of the night they can. We believe improved mobility will be a transformational for clinicians in helping the Trust attract and retain the best specialists and deliver better patient outcomes."

Vikki Lews, Chief Digital Officer

NHS
Worcestershire Acute Hospitals
NHS Trust



MOBILITY HAS NEVER BEEN MORE IMPORTANT

Right now, hospitals and NHS Trusts face never-before-seen challenges. Doctors and clinicians have become increasingly dependent on IT systems for mobile access and home reporting while maintaining normal clinical and non-clinical services alongside COVID-19 cases. That may continue for an indeterminate time. Multidisciplinary teams with doctors, nurses, and specialists contributing expertise, communicating regularly and sharing resources, have never been more necessary.

As we enter a new normal, with prolonged social distancing, a unique opportunity to address these challenges in one go has arisen. Virtual desktop infrastructure (VDI), purchased with previously unavailable levels of funding, can give health professionals what they need. It offers greater mobility with the assurance of working safely and effectively from anywhere – at the bedside, on the move or from home – with always-secure access to clinical apps, patient information, and HD images.

Yet, success to date has been limited. Lots of people know how to do VDI, so how does one turn a just-okay solution into a transformative digital infrastructure that makes certain of better care? This paper looks at best practice among Creative clients and examines the business and technical issues that must be considered.

TAKING THE BRAKES OFF

Digitisation helps address challenges by enabling clinicians to capture and share clinical expertise while working more efficiently everywhere. For instance, introducing PACS-driven workflows with integrated speech recognition, removing the need for radiology information system logins and simplifying dictation. As part of a normal three-screen set up, radiologists can work efficiently from home using chat functionality to communicate with colleagues, create groups to share and discuss cases, and see who is active or offline.

Nevertheless, VDI solutions have struggled when applied in healthcare settings. Mainly because they're not designed as open platforms or designed to handle massive clinical and medical imaging applications.

That means medical teams can't easily collaborate in real time with people inside and outside their organisations. Vast amounts of time are wasted moving scans and large files back and forth across the network or via email, applying the brakes on efficiency and decision-making. Also, Internet-based VDI solutions have raised legitimate concerns around security and data privacy.

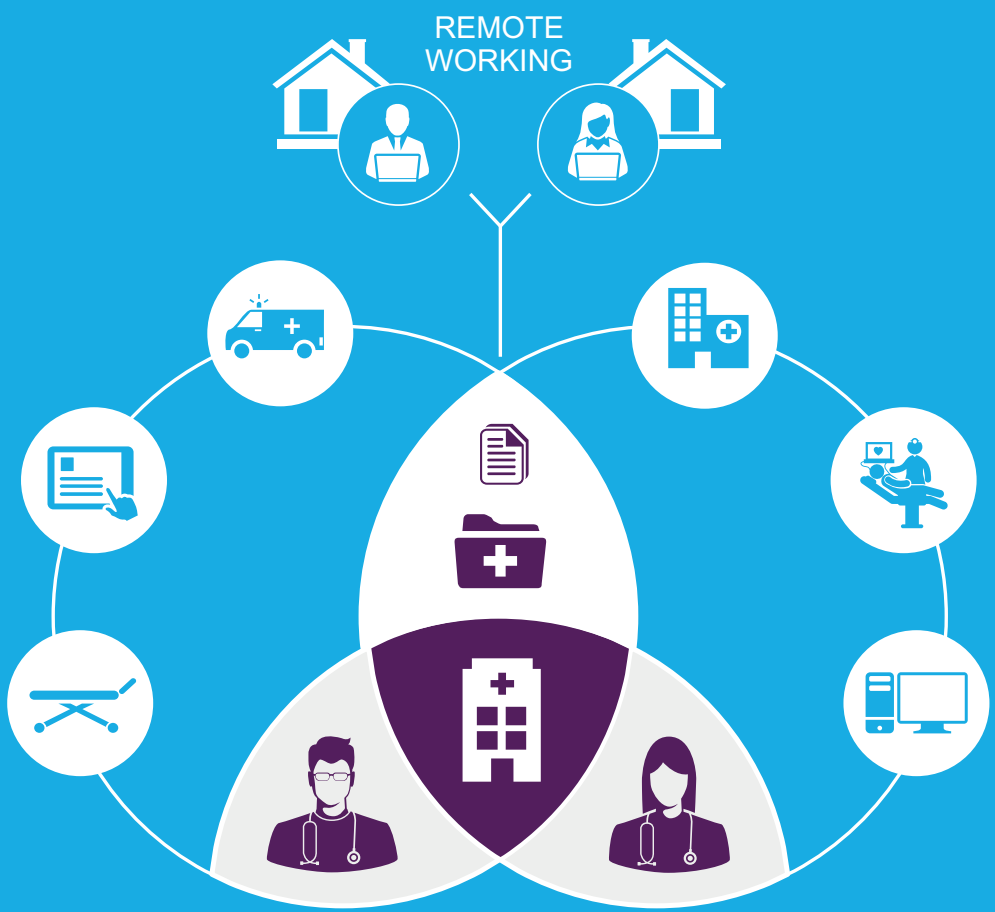
THE SCIENCE BEHIND MEDICAL-GRADE VDI

A Medical-Grade VDI architecture (see Figure 1) such as Creative's VDIPOD takes those problems away. Installed on-premise, it runs as a fully managed 24/7 VDI platform, eliminating the need to copy data and keeping everything locked down in a common environment.

Importantly, the platform's built with VMware Horizon VDI, Dell PowerEdge servers, Nvidia GRID graphics cards, Cisco networking and NetApp storage. These leading-edge components, proven in clinical science establishments, ensure apps and data are fully secure, while eliminating network latency. That way, imaging and healthcare systems run much faster compared to using traditional, out-of-the-box VDI products.

That means it's easier to meet NHS security standards and collaborate safely at scale – internally, with external partners and throughout the supply chain. Ensuring GDPR compliance, for example, and preventing patient identifiable data leaking out through loopholes.

Figure 1: Medical-Grade Cloud topology example



WHAT DOES BEST PRACTICE LOOK LIKE?

Pretty much without exception, Creative clients who have overcome the hurdles of financial approval and seen the best results from their VDI investment have taken a similar approach. They've justified and built support on the basis that they can **unlock significantly greater value, for around the same outlay**.

When it came to VDI procurement, many IT teams went for a try-and-buy approach, setting up a controlled proof-of-concept with a small user group to see the technology and benefits firsthand. They also welcomed the opportunity to shadow and exchange knowledge with Creative engineers handling the VDI implementation.

Creative clients chose different financial models with some buying their VDI solutions upfront as CapEx, while others preferred to consume VDI-as-a-service and spread costs as monthly or quarterly OpEx. The latter had the added benefit of one bill and one predictable cost, making it simpler to budget. To lower costs further still, IT teams built customised user profiles to meet the different needs of clinical teams versus admin and support staff, for example. Here we examine three specific use cases in more detail.

CONCLUSIONS

The above are strong use cases and natural starting points for implementing a Medical-Grade VDI architecture like Creative's VDIPOD. They include opportunities to reduce travel, streamline workflows and improve communications between multidisciplinary healthcare specialists. **Benefits include:**

INCREASING MOBILITY

Unchaining medical teams from their desks and workstations with a solution that's purpose-designed for large clinical applications and graphics-heavy software programs.

IMPROVING ACCESS TO MEDICAL IMAGES

Enabling clinicians to view 3D-rendered graphics – such as MRI scans – on any device, anytime, anywhere.

EXTENDING CARE TO THE BEDSIDE

Combining VDI with wireless, doctors and nurses working in A&E or on the ward can instantly call-up patient scans and records.

REPLACING EXPENSIVE DESKTOPS, ONSITE AND AT HOME

Equipping medical staff with a low-cost thin client, such as a Chromebook, that's always accessible via a VDI connection. Enabling them to check scans, for example, using apps like Google MRI Viewer or Siemens MRI Experience using tablets and smartphones.

GREATER SECURITY

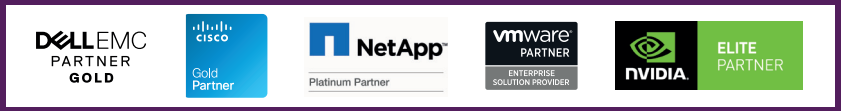
Put data and apps in the cloud to improve security and reduce risk of data loss. Safely onboard and offboard new staff and contractors. Spin-up services fast with golden images.

CAPEX SPIKE AVOIDANCE

No more provisioning delays or CapEx. Connect new sites and users simply by adding licences as needed. Charged monthly per user, with no minimum number required.

TIGHTER COST CONTROL

Save money on PC and laptop refreshes, software licences and IT support contracts.



HOW CREATIVE CAN HELP

We can help setup a VDI proof of concept to benchmark and validate improvements and – where appropriate – help build the business case based on our extensive experience of helping other customers achieve VDI success. For further information, please contact

enquiries@creative-itc.com

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