

Case Study



Medical imaging made simpler



Customer Profile

Keele University School of Medicine offers an outstanding combination of a distinctive curriculum, excellent educational and clinical resources, where staff create a friendly environment for medical students to learn and develop into excellent clinicians. There's a relatively small student intake, an attractive campus, and a supportive community with expert, enthusiastic, and committed staff.

Keele University is ranked Gold in the Teaching Excellence Framework (TEF) 2017, and the MBChB course has consistently scored well in the National Student Survey, coming first in 2018.

At Keele University School of Medicine, the ThinkPad P52 - a VR-ready mobile workstation from Lenovo - is delivering the right balance of performance, mobility, and security required for medical imaging tasks and more.

Introduction

The School of Medicine at Keele University is a top-rated medical institution devoted to providing quality education to future medical professionals. It prides itself on providing a student-focused learning environment designed to offer new ways to learn and collaborate. The school believes in actively using emerging technologies to complement other traditional teaching methods. The capture and storage of medical imaging is a key function of the Anatomy facility, and the team depends on reliable, powerful workstations for operational efficiency.

With such heavy dependence on technology, the need to find compute devices with the right specifications and features was integral. This search ended with Lenovo and the deployment of ThinkPad P52 VR-ready workstation among other devices in the University. These ultra-powerful yet conveniently compact devices could manage medical imaging tasks with ease while ensuring the security of the data stored in the device.

Challenges of medical imaging

Medical imagery and documentation require unerring precision to retain the best of image clarity while also being fast. Besides, 3D printing for prototypes, video editing, and VR applications often tend to slow down traditional desktops that are not cut out to work at such intensity. While ultra-powerful workstations is an option here but such VR-ready systems tend to tether the user to his or her desk since they are rarely mobile. So, the logistics of gathering high-resolution

images that are bound by strict security restrictions, processing them and producing quality results becomes both challenging as well as cumbersome.

Faced with such challenges, the team at the department was cynical about a completely VR-ready mobile device until the ThinkPad P52 was demonstrated and satisfactorily piloted. Its ability to bring power and performance together while giving users the flexibility to work from anywhere – thanks to the compact form factor – was exactly what the school needed.

Power, precision and portability

The School's Learning Technology Officer, Tom Lovelock – the key-user of the ThinkPad P52 VR-ready mobile workstation – appreciates the mobility that comes packed with power. “The mobility of the P52 allows me to monitor and process images and video inside the labs, close to the surgical training scenario. This enables me to



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Tom Lovelock

Learning Technology Officer, Anatomy Department, Faculty of Medicine & Health Sciences ICT Services, Keele University.

edit and then share the images and video with the different stakeholders on the same day,” he remarked. Before the ThinkPad P52 workstation was deployed at the school, this process took more than a day. Also, maintaining security and direct transfer of footage from one secure device to another proved to be the best way and saved Tom considerable time since he didn’t need to factor in web security for sharing of sensitive data.

The team is also using this device on a benchmarking research project. This involves using video evidence of clinical assessment which given security limitations and a strict 2-hour window had not been possible on a device other than the Lenovo ThinkPad P52 mobile workstation.

Tom was impressed with the port options available on the device. The flexibility of such features is helpful as the team no longer needs to carry additional devices to enable video output. “My colleagues are often

amazed at how such a slim workstation can achieve so much without any adaptors or docks,” he added.

Talking about some of the features that have been extremely useful, Tom reiterated the importance of simplified connectivity within a visually communicative atmosphere such as the University. “The connectivity through USB Type C, HDMI port, Display Port, and Memory Card Reader make video sharing an absolutely seamless experience,” Tom remarked.

He was also impressed by the security features on the ThinkPad P52. For example, there’s an integrated TPM chip to encrypt all sensitive data on the device while the MoC fingerprint reader



ThinkPad P52

KEY FEATURES

- Lenovo's first 15.6" mobile workstation capable of rendering VR
- Delivers powerful performance with both Intel® Xeon® and Core™ processing and NVIDIA® Quadro® graphics
- USB-C Thunderbolt™ 3 technology supports high-resolution displays and high-performance data devices
- Tested against 12 military-grade requirements and more than 200 quality checks

secures access to the device. This is an essential feature not only in terms of data security but also in terms of data access and practical use. Apart from these security and connectivity features, the specially designed keyboard with its premium finish has been Tom's personal favorite.

An evolving partnership

Lenovo has been Keele University's technology vendor of choice over the last 7-8 months and has steadily replaced a lot of other devices which will soon include workstations as well. Tom and team are currently experimenting with Lenovo's Mirage VR headsets for projects, specifically for clinical problem-based learning.

The overall Lenovo experience for the

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University, said Tom, has been defined by the people who are genuinely interested in the client's journey and have both knowledge and confidence in the products they sell. "Unlike many other vendors, the team from Lenovo has been extremely responsive. An email or a phone call is all it takes to be put in touch with the right person when faced with a query. The larger IT team at the university loves how responsive Lenovo is in answering customer questions."

As the use of Think devices in the University continues to increase, Lenovo is likely to become the key technology vendor for Keele University soon. "The more Lenovo is seen in the university, the more people will want to use it, and the relationship will grow stronger," added Tom.

5 reasons why Lenovo is a difference maker



Trusted around the world



Expertise across categories



Confidence in our products



Business-boosting technology



Flexible support network

