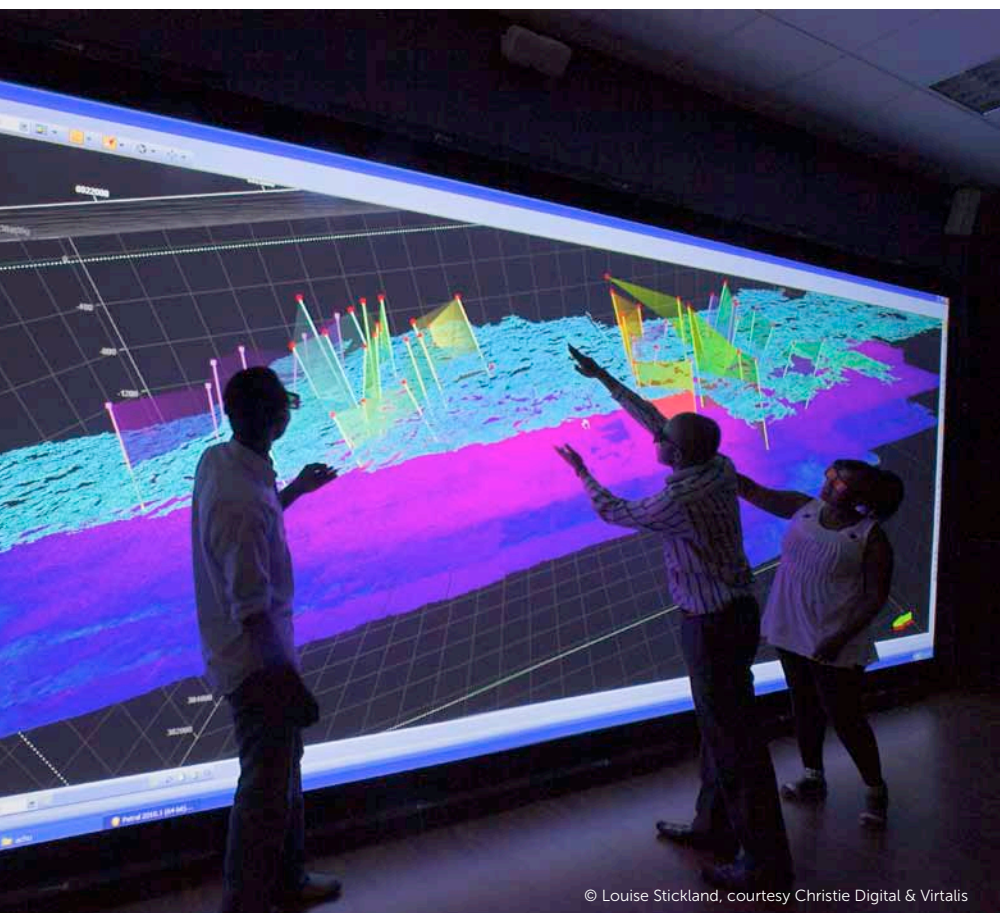




## Virtual world comes to life quicker in Africa

Leading virtual reality company delivers high-performance solution for university in South Africa, reducing lead times on customised workstations by approximately 25 per cent



© Louise Stickland, courtesy Christie Digital & Virtalis

“Unlike other vendors, which offer only standard configurations, Dell builds PCs and workstations just the way we need them. Dell OEM does all the hardware customisation and even fits third-party components.”

*Andrew Connell, Technical Director, Virtalis*

### Customer profile



**Company** Virtalis  
**Industry** Technology  
**Country** United Kingdom  
**Employees** 30  
**Website** [www.virtalis.com](http://www.virtalis.com)

### Business need

Virtalis needed fast deployment of customised, high-performance devices to build a Virtual Reality environment that could be used to educate the next generation of geoscientists.

### Solution

The virtual experts worked with Dell OEM Solutions to build a solution with Dell™ Precision™ workstations and Dell PowerVault™ storage to power its interactive, 7-metre ActiveWall screen.

### Benefits

- Lead time for customised workstations cut by around 25 per cent
- Workstations branded by Dell OEM Solutions immerse students in interactive visualisation
- Specialised deployment simplified with Dell open standards
- University fosters new relationships with commercial organisations
- Longer-lasting solutions for customers

### Solution areas

- End User Computing
- Networking
- OEM Solutions
- Server Solutions
- Storage Solutions

Virtalis specialises in immersive visualisation solutions and has been pioneering the use of Virtual Reality (VR) technology for more than 20 years. Recently developed solutions include ActiveCube – a multi-sided virtual cell – and ActiveWall, which allows the user to experience real-time, stereoscopic images in 3D.

When the University of the Western Cape (UWC) needed specialised technology to create a highly immersive visualisation environment (HIVE), it approached Virtalis. The long-standing Dell Partner prides itself on creating tailored solutions for customers, primarily based on Dell™ Precision™ workstations. It works closely with Dell OEM Solutions, which provides access to Dell's entire portfolio and customises products, services and support to meet specific needs.

Andrew Connell, Technical Director at Virtalis, says: "We work with Dell OEM Solutions because of the quality of the devices and the efficiency of Dell's global support. Dell also offers a speed of delivery and price-performance ratio that other providers simply cannot match."

#### **Efficient, customised support from Dell OEM Solutions**

Virtalis has a long-standing relationship with Dell OEM Solutions and uses Dell Hardware Customisation to tailor its systems to customer needs. When required, Dell Custom Factory Integration (CFI) adds extra hard-drive space and installs high-end NVIDIA® graphics cards. The company also uses Dell devices and its datacentres are powered exclusively by Dell PowerEdge™ servers.

"We build integrated solutions for customers, and write many of the highly specialised visualisation software applications ourselves," says Connell.

"Unlike other vendors, which offer only standard configurations, Dell builds PCs and workstations just the way we need them. Dell OEM does all the hardware customisation and even fits third-party components. The entire system is made to order, delivered and supported by Dell. It's great."

With Dell Custom Fulfilment Services (CFS), part of Dell OEM Solutions, Dell Precision workstations are shipped with the Virtalis logo, and a customised bezel. Virtalis is planning to work with Dell OEM Solutions to brand other devices, as well as all packaging, in the future.

"Thanks to the efficiency that Dell brings to our supply chain, we can meet our global deadlines."

*Andrew Connell, Technical Director, Virtalis*

#### **Technology at work**

##### **Services**

Dell Configuration Services

– Hardware Customisation

– Custom Fulfilment Services

Dell Support Services

– Dell ProSupport™ for OEM

##### **Hardware**

Dell™ Precision™ T5500 workstations with Intel® Xeon® processors 5680

Dell Precision M6500 mobile workstations with Intel® Core™ i7-920XM processors

Dell PowerVault™ NX3100 network attached storage

Dell PowerConnect™ 2824 switch

Dell UltraSharp™ U2410 24-inch monitors

### **Fast, international rollout to South Africa in less than two weeks**

With customers across the world, shipping times are often long, so a key challenge for Virtalis is not to keep its customers waiting. "Thanks to the efficiency that Dell brings to our supply chain, we can meet our global deadlines," says Connell. "With Dell's Hardware Customisation, we can get our systems out more quickly. We've cut the time it takes us to send out a customised workstation by approximately 25 per cent."

Dell configures all systems to order and has dedicated teams ready to customise workstations when Virtalis needs them. "For our UWC project, Dell delivered the devices we needed in less than two weeks. Even though there was a delay at customs, we were still able to meet our project deadline," explains Connell.

### **Versatile, reliable performance with Dell workstations**

Virtalis keeps a number of Dell Precision workstations as test units, to see how they work with its software and visualisation systems. "We're impressed by the versatility, reliability and performance of Dell workstations," says Connell. To power UWC's HIVE, Virtalis chose three Dell Precision T5500 workstations with Intel® Xeon® processors 5680 and two Dell Precision M6500 mobile workstations with Intel® Core™ i7-920XM processors. One of the Dell Precision T5500 workstations is connected to the 7-metre HIVE ActiveWall, and the other two are attached to Dell UltraSharp™ U2410 24-inch monitors. The Dell Precision M6500 mobile workstations support the ActiveMove, or 'mobile HIVE' systems.

Dell Precision T5500 workstations are ideal for space-constrained environments and offer powerful dual-socket performance in a small form factor. They were customised by Dell to include high-end NVIDIA Quadro® graphics cards.

One workstation drives the 7-metre ActiveWall and connects to Dell PowerVault™ NX3100 network attached storage (NAS) via a Dell PowerConnect™ 2824 switch. With 4 terabytes of local data storage across four disk channels, the master workstation has been configured for ultra-fast data streaming. Dell PowerConnect switches offer easy plug-and-play deployment and fast performance.

### **Specialised deployment simplified with standards-based architecture**

Virtalis values Dell's commitment to highly compatible, standards-based architectures. "The open architecture of Dell Precision workstations means that they work seamlessly with the high-performance NVIDIA graphics cards that our solutions require. We know that when we add them, they'll work first time," says Connell. "It's thanks to Dell OEM Solutions that we can offer customers such versatile, high-powered solutions."

The Dell Precision workstations for the UWC HIVE were configured to manipulate and model data using a range of industry-standard software packages, including Virtalis' own GeoVisionary tool. This specialised software enables geoscientists to visualise, analyse and share large datasets.

### **University gains expandable, high-performance storage**

The IT infrastructure for the HIVE is provided by the Dell PowerVault NX3100 NAS, which links 30 3D modelling computers with the ActiveWall. These PCs don't require any customisation and were supplied by the University. "We selected the Dell NAS for its 16-terabyte storage capacity, which was customised by Dell. This can be expanded by another 8 terabytes," says Connell. "It will provide the University with high-performance storage and fast file sharing for many years."



Similar system at NVISION, UK

### **Immersive visualisation creates new learning opportunities**

Built with funding from BP – and with additional financial and resource commitments from UWC – HIVE is the only visualisation environment of its type in South Africa. Users can navigate through the virtual world and manipulate components in real time as part of a fully-interactive and immersive experience.

Richie Griffiths, Director of Operations at HIVE, University of the Western Cape, says: "Within the African continent, other similar systems are limited and tied into specific, high-cost industries." Thanks to the Dell OEM-based solution from Virtalis, high-performance visualisation is now available to students, and serves as a valuable aid to those studying in the Petroleum and Applied Geology programmes.

### **University raises profile and extends commercial relationships**

"HIVE staff are confident that the Virtalis solution based on Dell technology can be applied to a range of disciplines," says Connell. "Demand is expected to be so high that we've delivered an additional, transportable 3D visualisation system."

UWC expects approximately 40 per cent of HIVE's time to be booked by commercial organisations specialised in petroleum, mining and land use. In this way, the Dell-based infrastructure will serve as a source of additional revenue and help raise UWC's profile.

### **Performance that lasts, with long product lifecycles and global warranties**

Dell offers Virtalis and its customers international warranties on all Dell OEM technology.

"We frequently export outside the European Union, but with Dell's warranty terms a system that's built and sold in one country is also supported in the country to which it's exported. Unlike most other vendors, Dell operates as a truly global organisation," says Connell.

The long lifecycles of Dell OEM devices – an additional 12 months after the next generation of Dell Precision workstations is available – is important to Virtalis' customers, who want solutions that last. Connell adds: "Dell continually releases new driver and BIOS updates, even for workstations that have come to the end of their lifecycles. Other manufacturers just don't offer that."

### **Greater uptime for customers worldwide with extended Dell support**

All Virtalis customers receive Dell ProSupport™ for OEM as standard. This means that the Virtalis team spends less time dealing with customer issues, and more time developing new solutions and processing customer orders.

"Regardless of where we ship a solution, we know that Dell staff will be on-hand locally to deal with any issues," says Connell. "Dell OEM offers us ProSupport for OEM, which includes a 90-day extension on every system – that's 39 months of support. This gives us three months to deliver it to the customer, and ensure that they still receive their full three years of support."



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