



Cardiff University Gains First-class Information Access

Cardiff University's College of Medicine, Biology, Life and Health Sciences has around 4,000 undergraduate and postgraduate students and 1,400 staff. It shares a site at Heath Park, Cardiff with the University Hospital of Wales and dental hospital. It is committed to giving all its users — regardless of location — access to information services and collaborative tools. The institution is a result of a recent merger between University of Wales College of Medicine and Cardiff University, building on the worldwide reputation of both institutions for the highest-quality teaching and research.

THE CHALLENGE: MEETING THE ACCESS NEEDS OF A GEOGRAPHICALLY DIVERSE USER COMMUNITY

At any one time, around half of these students and many of its staff are on work and academic placements at various sites across Wales, including more than 20 district general hospitals. The institution had a number of obstacles to overcome in providing cost-effective access to information and collaborative resources — to users both on campus and elsewhere. These challenges included the large number of users in diverse locations, low connectivity speeds within the National Health Service (NHS) in Wales — whose network was essential for providing access for the hospital's students and staff based temporarily at other hospitals — patchy bandwidth coverage and the proliferation of different devices used.

The necessarily secure nature of NHS sites — which handle confidential patient data — was another key factor. And, while a wireless solution was appropriate to the campus itself, secure delivery to hospitals and other remote sites required a broader strategic access solution. In addition, the project involved a number of stakeholders, and political sensitivities were a major factor.

IMPLEMENTING A CITRIX SOLUTION FOR REMOTE OFFICE CONNECTIVITY

The university selected **Centralis**, a Citrix® Managed Consulting and Premier Alliance Partner, as delivery partner to implement a solution based on Citrix MetaFrame® Presentation Server. The solution included installation of 110 wireless access points around the Heath Park campus, creating one of the largest wireless installations in Europe. By routing these devices over a VLAN and connecting to the campus network via the secure gateway component of

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Assistant Director and Head of the Strategy Group, Cardiff University Information Services Directorate

Key Benefits

- Supports clinical and research excellence
- Enables collaboration by dispersed users
- Low-maintenance solution
- Secure, with low bandwidth requirement

Applications Deployed

- Microsoft® Office XP
- Novell GroupWise 6.5
- Internet Explorer
- SAP
- Adobe Acrobat
- Statistics software including SAS, SPSS and Minilab
- Bibliographic software including EndNote

MetaFrame Presentation Server, the university was able to overcome the combined problems of security and low bandwidth.

To enable access to university resources for the first time from sites around Wales, the university approached the Board of the NHS Information Authority, whose network houses patient-critical information systems. The proposal was to establish the UK's first dedicated link between an NHS network and the Joint Academic Network (JANet) — the network used by academic institutions.

The university is now connected to the NHS Wales network via a 100MB link that supports the delivery of a secure Citrix-based service to more than 20 district general hospitals in Wales. Authorised users can also now access applications and information from Wyse Winterm terminals at post-graduate library sites, using individual hospital trust networks as a conduit. The solution thereby extends access to the university's various remote users, while preventing any unauthorised access to the NHS network. For security, the system relies on Citrix's own 128-bit encryption technologies coupled with Novell log-in procedures.

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REMOTE CONNECTIVITY SUPPORTS THE PURSUIT OF CLINICAL AND ACADEMIC EXCELLENCE

The accessibility and security of the solution were critical — it had to win the confidence of all stakeholders, including officials within the Welsh government. Citrix MetaFrame

Presentation Server was essential to the solution, because it is secure and enables applications to be delivered to users with high performance over low-bandwidth connections and on any type of client device. The solution is significantly less costly to install and maintain than another option that was considered for extending access across Wales, which would have involved providing additional leased lines to a small dedicated network at each of the district hospitals.

The big benefit of this project is that it enables a dispersed university community to pursue inter-disciplinary healthcare research, learning and teaching — just as though everyone was on campus. There was no access from these remote locations before. Now, via an open Internet Web browser, users can access the university server network, share files, submit work, collaborate online and use all the applications they need, including software specific to their disciplines.

"Citrix software is a critical part of a groundbreaking project whose success will benefit the health of a nation, thanks to the collaborative research and teaching enhancements it makes possible," added Rucinski. "The progress made will allow others around the UK to build on the confidence that has been established within the NHS community to deliver more effective information systems and services — and potentially a more comprehensive approach to public sector information service provision in general."

The project was awarded the prestigious UCIAS Award for Excellence 2004 — which recognises best practice in the use of IT — for its breadth of access provision and pioneering progress in delivering collaboration within the NHS. The project was also recognised with the award of "Best Citrix Solution, 2004" for

Networking Environment

- Citrix® MetaFrame® Presentation Server running on 10 servers
- Microsoft® Windows® 2000 Servers
- Novell eDir and ZENworks Desktop Management
- LAN, WAN, wireless LAN, GPRS
- 50 Wyse Winterm Windows-based terminals, variety of PCs, laptops, MACs and Linux desktops

Centralis at the UK Solutions Advisor Awards.

FUTURE PLANS

The university has developed proposals to build on the project, for example by providing secure information services to all junior doctors, by providing access for NHS staff to grid and mass computing services, and by enabling inter-disciplinary activity across sectors as well as within academic disciplines. A major success already, this project has the potential to deliver even greater benefits.

About Citrix MetaFrame Access Suite: Extending the world's most widely deployed presentation server, the Citrix MetaFrame Access Suite is access infrastructure for the on-demand enterprise. The suite centralizes access to applications and information and enables IT staffs to deliver, manage, monitor and measure enterprise resources on demand.