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Case Study: Paul Strickland Scanner Centre

The hospital was founded in 1860 as The North London Hospital for Consumption and Diseases of the Chest in Fitzroy Square (St. Pancras) and moved in 1864 to Mount Vernon in Hampstead. Mount Vernon became a general hospital.

In 1967, The Marie Curie Hospital, which provided cancer services, moved to Mount Vernon, Northwood. The Paul Strickland Scanner Centre opened in 1985 and was officially opened by the Duchess of Kent on 20 March 1986.

This centre provides specialist imaging facilities using high quality equipment. The hospital is also home to the Gray Cancer Laboratory which was founded in the 1950's, and the old hospital chapel was converted into a library for the Gray Cancer Institute in 1988.

In 2009 a new treatment centre opened. This provides surgery facilities in four new operating theatres. There is also a new outpatients department located in the treatment centre. The PSSC also opened a new annex to their facilities to house training rooms for the purpose of training doctors & consultants in the use of the medical imaging equipment & a new data centre for transferring & storing the vast quantity of medical images they receive on a daily basis.

The data centre was to be connected to the main hospital complex via diverse, resilient 10Gig fibre connections to allow both connections to be used in a “load sharing” capacity for data transfer from the main imaging and scanner department. Also an upgrade to the edge switches based within the main complex was required to upgrade the available infrastructure to be capable of 1Gigabit to the desktop where required.

Rapier Systems proposed the LAN equipment to be used both in the main Treatment centre & the annex, being connected by 10Gig dual fibre connections for quick transfer of Medical imagery the dual 10G connections were LACP (Link Aggregation) to allow the “Pipe” between the 2 buildings to operate at 20Gig, with the advantage of resilience in event of any single fibre failure.

The Switching/Routing equipment proposed was high density standalone switches with the ability to be “Stacked” to give a resilient bundle of switches operating with Backup power supplies & dual connections between individual switches within each stack. There was also a need for QoS policies to be applied to allow the imagery to take precedence over normal IP traffic and also Rules to prevent the wrong operators from viewing sensitive material that they would not normally have access to.

Once installed & commissioned the system was verified by external authorities to check that the security implementation & bandwidth availability was up to the Trust requirements, and then it was brought online and severed the Scanner Centre with a high capacity, high Speed & resilient LAN switching architecture.

The Trust obtained a high speed, resilient connection without the cost or complexities of a traditional chassis based system. This gave them the ability to purchase the port count required at the time and grow when required without the space & cooling required for large chassis system. This also fulfilled he Trust requirement of no single point of failure as the intelligence was spread across a stack architecture

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About Rapier Systems

Formed in 2003 Rapier has unrivalled expertise in the design, delivery and support of wireless (including WiFi) networks and systems; the company is a value added integrator of best-in-class wireless products.

Whether within or between buildings, upgrading or replacing existing networks, or designing and installing new wireless systems, Rapier's experience in environmental analysis and network design ensures complete coverage and optimal performance.

Rapier works with world leading wireless system vendors, including Ruckus, Alvarion, Airtight, Cambium/Motorola, Ceragon, SAF Technika and several more. The company has reached the highest level of accreditation with each of its partners and understands which vendor and product is best suited for each environment.

Rapier has grown dramatically on the back of a surge in demand for wireless networks, which it has designed and installed in a wide variety of challenging environments from colleges and oil rigs to business parks and theatres.

Rapier maintains Scotland's largest Wireless Network, covering Dundee City, Angus and Perth & Kinross Councils, which comprises around 250 sites.

The company has designed and delivered some of the most innovative wireless solutions in the UK, including the largest metropolitan area wireless network in Scotland and one of the largest county-wide wireless networks in England. Rapier delivered the 1st fully licensed Gigabit wireless link in the UK.

The company's headquarters is located in Fife, Scotland and it has offices in St Neots, Cambridgeshire, England.

Rapier has a UK wide customer base in sectors that include Local Government; Transport, Renewables, Oil and Gas, Retail and Leisure.

For further information please visit **www.rapiersystems.com**

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