



## CASE STUDY

### Pavilion ConneXions



"Pavilion ConneXions is now an example of one of the first large scale installations running a single converged network delivering totally prepaid voice and data over broadband to over 800 students," said Howard Russell, director, Signature Networks. "With the help of Colubris we are able to deliver the high efficiency and cost savings our customers value, whilst on this project allowing students to benefit from cheaper calls to anywhere in the world and with no additional line rental charge normally encountered."



## Pavilion ConneXions

A new market is emerging within the UK higher education sector. As academic institutions prepare to meet the UK government's ambitions to attract half of all school leavers, housing developers have recognised a significant market opportunity. Commonly, the universities simply do not have the resources or existing accommodation in place to house the increasing number of students. External development companies are therefore being contracted in to supply campus based but independently managed, suitable, low cost housing that provides all the facilities that will be successful at attracting students.

Lincoln University was one of the first educational institutions to adopt this entirely outsourced approach and a large housing developer is now in the final stages of completing its second private development, the Pavilion Student Village. The student's technology needs demanded a fast, high quality infrastructure, offering not only cheap telephony and secure internet access, but also the capacity to deal with the bandwidth requirements of file sharing and music downloads.

Pavilion ConneXions, a small company formed in May 2005 was brought in by the developer to assess and manage the implementation of the technology solution that would meet the student's needs. Pavilion recognised that to equip the student village, comprising of eight blocks, with competitively priced telephone and internet access, they would need the expertise of a specialist solutions provider who could develop a scaleable and flexible system that would be competitively priced and ultimately ensure rental success for the accommodation.

### The Challenge

Pavilion ConneXions identified a number of fundamental requirements for the system:

- **Ease of use:** Both at the user-face level for students and to keep management costs to a minimum.
- **Cost:** Internet access and telephone calls to be freely accessed in student rooms at low cost.
- **Flexible and customised system:** Cabling had been laid into each of the individual blocks at the time of initial construction therefore a system was required that could deliver both voice and data down one Ethernet connection.
- **Scalability:** The system would be rolled out across several buildings and it was critical that a technology was used that could allow a large number of simultaneous student connections.
- **Bandwidth control:** An additional prerequisite for a set and controlled bandwidth per student to control excess demand due to filesharing.
- **Security:** As students would be using their own PCs, it was crucial that the system would offer protection on all PCs linked into the network.

Signature Networks, a leading integrator of advanced network-orientated solutions could see that the right solution would provide a combination of a sophisticated internet service that could be easily scaled up or down with no impact on security or delivery of service, where VoIP could be reliably offered and a pre paid billing



#### About Signature Networks

Signature Networks is a specialist systems integrator and billing service operator. Providing customized solutions for proprietors and resellers in the hospitality, entertainment and education markets. Signature operates central billing services for Internet Access and VOIP offering tariff structures and services unavailable from the large national operators. Today, Signature is a preferred supplier of billing systems and services to many UK and European businesses.

#### About Colubris

Colubris Networks is a global provider of multiservice WLAN systems for enterprises and service providers, delivering highly scalable, flexible solutions for wireless voice, data and video networking. Colubris solutions make it easy and affordable for organizations to give their employees, guests, customers, suppliers and partners mobile access to network services. Today, more than 1,000 customers worldwide rely on Colubris' award-winning solutions, among them the world's most demanding wireline and wireless carriers, and leading enterprises and institutions in the hospitality, retail, education, and healthcare markets.

system could be installed that was easy to manage. "At a business level it was clear that what was needed was a system that would not be onerous to own and manage. If we were to be successful in our bid we would need to put together a network that was high tech but automated and incurred minimal administration costs but that really met the diverse needs of the students" said Howard Russell, director at Signature Networks.

#### The Solution

After a thorough technology and system integrator assessment, Signature Networks was selected. "Signature Networks demonstrated superior knowledge and credentials that mapped onto our exact business requirements for this system," said Jason O'Rourke, director, Pavilion ConneXions. "By offering customised installation that we could own, whilst providing us with their capability of controlling usage of the system whilst remotely managing the network, were all key factors in our final decision. They really came up with a solution that would give us an edge to our competitors".

Signature Networks based the system on technology supplied by Colubris Networks, a leading supplier of Intelligent MultiService Wireless LAN systems and Alepo to provide the billing technology.

"The Colubris technology implemented in this customised solution was instrumental in the success of our bid, as it provides a flexible, scaleable and robust security that is demanded by large-scale campus deployments", comments Howard Russell, director at Signature Networks. "Colubris equipment can reliably handle a considerably larger number of students than other comparable products on the market, with the system today handling 500 simultaneous student connections at any one time."

The first block was completed in August 2005 and within two weeks the customized technology solution was installed, providing Internet access and telephone services to approximately 200 students. A highly competitive tariff system has been developed, with free calls allowed to other students occupying the block. PIN numbers can be purchased in set amounts, for example for a month or year and for Internet or telephone only or a subscription can be purchased for both services.

The ability to seamlessly integrate the Colubris System with Alepo RBS Hotspot to integrate billing was a significant factor to the success of this solution, offering the flexibility and control required. This has enabled Pavilion ConneXions to sell password access to the services, produce and use prepaid vouchers and allow sign up of subscribers instantly to the Internet based services. The solution allowed secure payment by credit and debit card in advance of any usage, giving students access to cheaper calls via VoIP, whilst eliminating the need for administrators to manually collect money for the services used.

"File sharing is often blocked by universities, but with the emergence and popularity of iPods and music sharing, we realised this was a service that students are starting to see as a must have. What we did not foresee was the impact the traffic would have on our system", says Jason O'Rourke, director, Pavilion ConneXions. "Due to Signature Network's remote monitoring of the system and the scalability of the Colubris technology, at very quick turn around the bandwidth for file sharing was increased and the problem very quickly resolved."



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