

# Southampton institute

Business



Company: Enterasys Customer: Southampton Institute Submitted by: MCC International Date: June 2000 Southampton Institute's Computer Systems Service department had to undertake a significant upgrade to its network infrastructure, in order to rapidly enhance and expand network services supporting both academic and administrative needs. It is crucial that educational institutions now provide industry-standard networks, due to the nature of its academic delivery of courses, but also to support the increasingly demanding nature of the Institute's internal processes. The new network had to be specified, installed and operational in a very short time period – just over four months. Based on Enterasys SmartSwitches and a SmartSwitch Router (supplied by partners Resolv Computers and Azlan), the new network was delivered on schedule and was operational in time for the opening of its latest building, the prestigious Michael Andrews Building, in October 1998. Southampton Institute will also shortly be implementing Enterasys Smart Networking Services to orchestrate the future deployment of virtual LANs, video services, and possibly in the longer term, converged voice/data.

## **THE CUSTOMER**

Southampton Institute is the UK's largest college of higher education. A premier provider of vocational learning, it boasts ten research centres in fields ranging from design to computing and engineering. The Institute offers over 50 undergraduate, 20 HND, and 24 taught-postgraduate degree courses to over 15, 000 students. The Institute is committed to providing a dynamic environment for staff and students. Since incorporation in 1989, £70m has been invested in improving facilities.

Key events have been: the opening of the £7m Mountbatten Library in October 1994, replete with the latest in multimedia and fast information retrieval systems; the opening of the purpose-built 10, 000m<sup>2</sup> Sir James Matthews teaching complex in 1994; and the opening of the Michael Andrews Building, housing new IT and administrative centres, in October 1998. The Institute has one of the best manufacturing technology centres in the UK, the most advanced ship's bridge simulator in Europe (as part of its maritime training facilities), and broadcast-standard TV/AV video equipment in its Media Studios. THE LEGACYAcademia has a long tradition of being involved with leading edge IT, and Southampton Institute's association with computing goes back well over 20 years." The Institute was originally a College of Technology, so there has always been a strong techno-culture here," John Carling, Head of Computer Systems Service, explains. " Over the years this has been periodically upgraded, to keep abreast of progressions in technology, but also to maintain enhanced services to all parts of the Institute as it grew and evolved. We had ended up with a switched FDDI campus network, based on a Digital FDDI GigaSwitch and aCisco7000 router. Even after only two years this configuration was starting to show its bandwidth limitations and age." " We had a switched FDDI topology acting as the network backbone, but this was starting to show signs of strain, particularly at peak times, such as when students leave their lectures and go straight to the computer rooms to log-in," continues Carling's colleague Graham Cope, Network Development Manager. These were problems the network was having with fairly standard applications like WP, spreadsheets and databases. Carling and Cope knew that if Southampton Institute was to be able to support increased internet and intranet usage as well as advanced

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network services planned for introduction in the future, they would have to effect a complete overhaul of the network infrastructure – and they'd have to be quick.

## **THE PLAN**

Carling and Cope's appraisal of the future needs had to take account of both physical expansion and the likelihood of a need to support advanced services within 18 months.

“ We had three options, essentially: enhanced FDDI, ATM or switched Ethernet,” says Carling. “ But if we had stayed with FDDI we would have just been marginally improving the network. We also knew that we probably couldn't afford to go to ATM.” Budget allocation, as ever, was a key factor in the decision process. Carling and Cope's case was not argued from a purely technology perspective, “ A piecemeal approach to augmenting the existing switched FDDI network would have been cheaper, but we knew that it would not be long before that would have to be ripped-out and replaced,” says Carling.” The question to emphasise was: ‘ What value do we place on better technical support and services?’ That's one of the questions we had to answer.

It's an intangible thing to qualify in absolute economic terms. It was fully agreed that we had to have an industry standard, industry-strength network.”

## **THE REQUIREMENT**

Once the Southampton Institute team had received budget approval, and decided not to go for ATM, they issued an open tender for replacement of the <https://assignbuster.com/southampton-institute/>

extant network in two sections (core and edge devices). They received responses based on solutions from Enterasys, Cisco, Bay (now Nortel), and 3Com.” The tender was “ fairly specific” about what we wanted,” smiles Cope, “ What we didn’t do was send out a requirement specification which was couched in terms of ‘ How would you go about doing this’.

We gave vendors a clear goal, so that we could compare like with like more easily. But at the same time, we invited the vendors to include any other ideas they wished to include as well as their main proposals.”” There was a risk in going straight to Gigabit Ethernet,” says Carling. “ We were reliant on the successful vendors being able to deliver a robust network by June 1998. But on the other hand, none of the other proposals could better the one from Enterasys.

One was way too expensive; the others came up with piecemeal solutions because they didn’t yet have the right boxes available.”

## **WHY ENTERASYS?**

The Enterasys proposal submitted jointly by its partners Resolv Computers and Azlan, proved to be the eventual winner. John Carling explains why, “ All the resellers were quite happy to talk to us,” recalls Carling. “ But we had to be sure that they could support the new network’s core components. We were impressed by the SecureFAST portfolio from Enterasys”.

Graham Cope adds, “ We wanted seamless interaction across the network. There were elements we liked about the Enterasys devices, particularly their ability to mesh the network interconnectivity capability, so that we could dynamically control network segmentation, but also aggregate bandwidth as <https://assignbuster.com/southampton-institute/>

required.” Adds John Carling, “ We were keen on a trunked network that had resilience and bandwidth flexibility. The Enterasys SmartSwitch Router platform now delivers that. We also got a good feel from the company. They were making the right noises in terms on on-going support.

“” Enterasys is not renowned for its experience in the world of academia,” says Cope. “ We knew that other vendors were supposed to have greater installed base among universities and colleges. But as the full capabilities of the network unfolded, we were surprised at how leading edge we were.”

## **THE INSTALLATION**

Resolv/Azlan won the Southampton Institute contract in July 1998. The equipment specified included 54 Enterasys SmartSwitch 2200s, some SmartSwitch 6000s, and one of the first SmartSwitch Router 8600’s to be installed in the UK. The big question was: could the new network be installed in time for the opening of the Michael Andrews Building, scheduled for early autumn 1998? John Carling says the Southampton Institute team had made a commitment to have an appreciable amount of edge devices up and running in the new building at the time it was opened.

“ We were determined to have the network installed and ready to use by the time the Michael Andrews Building was officially opened by The Princess Royal. This meant that the successful solutions provider would have to be able to guarantee availability of kit within something like three months.” In the event, although the new network installation progressed according to schedule, it was the opening of the building itself that was delayed. “ This gave us the advantage of being able to provision more core connectivity

than we'd anticipated - we stuck to our own schedule," Carling says.

Southampton Institute is now looking at the Enterasys Smart Networking Services and SPECTRUM suite - initially for traffic analysis tasks, but also with a view to easier management of the network services Carling and Cope believe they will have to provide in the future. " The Enterasys management products will come into their own as we start to introduce video services," says Graham Cope.

" We looked at other network management products, but we were attracted by the simplicity with which the Enterasys products do the job."

## **THE FUTURE**

" The ability to dynamically segregate student and Institute staff LANs is imperative. Security is key to this. Students are making increasing use of IT services, and we have to anticipate developments such as a growing need for remote access to educational LAN services from students working off-site. The new Enterasys network gives us the performance and the management tools to do this." concludes Carling.