

YHMAN, A Regional Network for Tomorrow

Jon Duke announces funding for and implementation of the next generation of national networking.

For over a year now, eight Universities in this region have been collaborating under the banner of the Yorkshire and Humberside Universities' Association (YHUA) to plan, arrange funding, and purchase a new network linking them all. The object of this work, the Yorkshire and Humberside Metropolitan Area Network (YHMAN), is conceived of as an essential piece of jointly-managed infrastructure which will be used to facilitate all forms of IT-based collaboration in teaching, research, and work with industry.

It is also planned to use YHMAN to make links with the subsidiary campuses and residences of each participating University, their affiliated Colleges, FE colleges, other organisations such as libraries, museums and schools, and also industry where collaboration or consultancy is involved.

YHMAN is already being used as a backdrop in academic bids for a number of major IT- and information-service grants, and is expected to grow to host important network resources such as cache and mirror stores to improve access to information such as World Wide Web pages or video material. This article briefly tells the story of the project so far.

The project Steering Group is led by Leeds University UCS and has members from all the other participant institutions. It has been running a procurement exercise according to European Union procedures to identify

suppliers for both a network backbone to link the eight Universities and the end-equipment at each node. A Technical Assessment Group, also with members from each University, agreed the detailed technical requirements, and assessed suppliers' tenders.

Early on, it was appreciated that the network was capable of carrying SuperJANET services. It also became clear that YHMAN was likely to start operation at just about the same time as the next generation of national academic networking, SuperJANET III, the contract for which has just been signed. Accordingly, both the Joint Information Services Committee (JISC) of the HE Funding Councils and UKERNA were kept informed at every stage.

Resulting from the backbone procurement, a consortium of three cable companies (Cable and Wireless Communications, Cabletel Kirklees, and Yorkshire Cable Communications) is being contracted to supply the backbone, and the diagram below shows the way the backbone links the Universities.

The ring structure gives resilience to sites on the ring, as a broken link on the ring will not isolate a site. For the technically minded, the cable companies are supplying a basic SDH carrier service, and the consortium of Universities is contracting the UCS at Leeds to provide and manage an ATM service to the eight consortium Universities, using a company set up for the purpose.

In practice, the ATM service will mainly be used to carry IP data traffic. All the network links operate at 155Mbps, apart from the one to Hull, which runs at 34Mbps. (These speeds contrast strongly with those of present links to SuperJANET, typically 8Mbps).

