

## **Reports from Regional Networks for UKMMG Meeting of 27 April 2006**

### ***WNL (running the SWMAN and LLNW): Roger Williams***

Following the strategic decision to migrate the SWMAN onto the Welsh Assembly Government's LLNW network, the SWMAN PoP Site at Aberystwyth has been successfully moved over. The other SWMAN PoP Sites will follow in the next few months. Multicast has been enabled on the LLNW. Discussions with the telcos to modify our existing circuit rental contracts in the light of the migration are nearing a satisfactory conclusion. We will (hopefully) end up with only one microwave link.

Agreement has been reached by all parties on the modifications needed to the LLNW to enable it connect the NWMAN and SWMAN to SJ5. UKERNA are generously donating a second hand GSR router for our RNEP2.

The VERIZON site survey finally took place on 4 APR. None of the information which had been labouriously compiled and sent out beforehand had been passed onto the VERIZON staff who came to Cardiff.

The proposed All Wales Public Sector Network is going ahead and consultants are being employed to develop the business case and ensure compliance with UK and EU legislation.

Our e-Learning initiative (using Thomson NETg's courses) has been extended to 2009 and is available (at £800pa per institution) to employees and students at any organization connected to JANET. The range of courses has been extended beyond the usual Microsoft and Cisco technical ones to Project Management and Business Skills.

### ***NWMAN: David Stedham***

Having spent some time deciding how the migration of the NWMAN core to the Lifelong Learning Network for Wales should be achieved and sorting out budgets, we are now tendering for the necessary additional circuits and equipment and for maintenance of the routers we will retain from the existing MAN. The procurement is likely to be under the PASA framework agreement.

The MAN is now running multicast, although the only organisation which has asked for it is having problems getting it across its firewall. Two multicast beacons will be deployed soon.

### ***SWERN: Kit Powell & Andy Mason***

We have completed our re-procurement of backbone circuits. From each of the two RNEPs in Bristol a circuit runs to one of two PoPs in Bath, Cheltenham, Exeter, and Plymouth. The two PoPs in each city are also interconnected. The two circuits to each city are supplied by different telcos. The first seven circuits are to be installed in July. We have included a clause specifying maximum latency for each circuit, with a UKERNA-style remedial process if it is exceeded.

A BT Megastream Ethernet circuit to our Swindon PoP became unserviceable in February due to an error made by BT during an (unannounced) software re-configuration. A combination of BT internal communication and organizational problems resulted in 10 days being needed to diagnose and fix the fault. Fortunately we were offered capacity on a private University of Bath circuit to mitigate the impact on the PoP's clients.

Preliminary work at both RNEPs, in readiness for receipt of SJ5 connection, is complete and certificates are being returned to Verizon. Our SJ5 transition plan addressed only minor works in preparation for Verizon's installation.

### ***MidMAN: James Hendry***

#### **MidMAN REPLACEMENT**

- The MidMAN due diligence exercise is underway to demonstrate that MidMAN replacement requirements (and inter-alia including necessary SJ5 related aspects) are met by the reprocured regional network infrastructure.
- WMNC Ltd has formally responded and detailed MidMAN analysis of their response is in progress. Needless to say, as usual significant effort is focused on financial aspects.
- As necessary UKERNA has been advised of the ongoing status of the MidMAN replacement in the context of SJ5

#### **MPLS**

- MPLS implementation on the current regional network was successfully completed by Synetrix on 31 January 2006.

#### **DISASTER RECOVERY PLANNING**

- In the context of Collaborative DRP, the first 'best practice sharing meeting of MidMAN HEIs was recently held. This proved a useful meeting and the consensus was that such meetings should continue to be held periodically.
- An InTechnology presentation has been arranged for early May 2006, and in parallel discussion is ongoing with LMN to understand their drivers for

engaging with Collaborative DRP.

## GOVERNANCE

- As noted in the previous report, the MidMAN Management Group has convened a Working Group to review its governance arrangements (currently a Consortium, set up in 1998) to identify whether or not an alternative arrangement could now be more appropriate.
- MidMAN thanks are due to UK MMG RNOs for the information they provided in response to the MidMAN questionnaire on RNO governance (i.e. incorporated or consortium).
- Current Working Group activity is focusing on financial issues such as VAT and Corporation Tax and their implications for any future governance structure.

### ***Kent MAN: Paul Kentish & David Hayling***

#### **KM II – the next stage of the Kentish MAN**

The final part of the core network for KMII is planned to go live on 2/5/06. It forms a ring of BT Wavestream circuits procured via Logicalis and connects Maidstone, Wye, Canterbury and Chatham, with an additional link from Chatham to Eltham. Initially this is being operated as Gigabit Ethernet using Cisco 6509 routers. There is a spare Gigabit Ethernet.

#### **But the radio lingers on...**

Although the core network eliminates the use of point-to-point radios for the core, these are still in use on some ancillary links. The programme to remove these has been stalled whilst a decision is awaited from the newly-formed University College for the Creative Arts at Canterbury, Epsom, Farnham, Maidstone and Rochester (to give it its full title – UCCA for short). UCCA is in the process of procuring its own WAN and so may withdraw from the Kentish MAN completely. Once the KMII project is complete the only remaining radio link be from Canterbury to the Isle of Thanet.

#### **WiMAX on the increase**

The Kentish MAN is now providing transit within Kent to Telabria Ltd who operate a WiMAX product under the name So Broadband. They have links into 4 PoPs and another is planned. We are applying to RIPE for LIR status, partly so we can have an AS number which will then allow Kent MAN Ltd to take ownership of kentman.net.uk from one of our members, but also we are considering provisioning a commercial global IP connection.

#### **RNEP preparation**

Kent MAN Ltd decided not to submit a Transition Plan for SJ5 and the work that was needed at the Chatham RNEP1 site was successfully carried out on Easter Saturday. This involved moving the current SJ4 BAR equipment so

that the SJ5 equipment would be in the most suitable location. The small matter of the Great Crested newts remains but we understand Verizon is dealing with it.

### **Workshop**

A workshop is being organised for network staff from sites connected to the Kentish MAN. It will take place on 4th May and it is hoped that FE as well as HE staff will attend. Andrew Cormack has kindly agreed to be one of the speakers.

### ***ClydeNET: Linda McCormick***

#### **SJ5 Rollout**

We have had site visits at both RNEP sites. At our main site fibre has been pulled in but not tested; a rack has been delivered but not installed. We have had a site visit at our 2nd site (~ 5 weeks after originally scheduled) but no further action. We are still awaiting details of the collector arc route.

#### **SJ5 Transition Plan**

ClydeNET has submitted an SJ5 Transition Plan to UKERNA. Our POS interfaces have been delivered by our supplier who honoured the commitment to meet the UKERNA procurement price. We are also upgrading the routers at the RNEPs to have Sup 720 3B engine which is MPLS capable; order placed and are awaiting delivery.

#### **Relocations**

Will be an ongoing issues as a third of our colleges are relocating their primary site over the next 3 years with the first moving by the end of this year. We are highlighting the necessary for them to ensure that the costs of their MAN link are included in their business plan. I foresee lots of issues as our contract for our managed service links terminates end Sept 07 and building projects always run over ...

More immediately, an HEI is erecting 2 new buildings (with 1 demolition) on both the north & south sides of the road where the ducts for our main fibre ring linking our PoP sites at Glasgow & Strathclyde run. Although one building is about 9 months behind the other, we are working with Thus to plan a single relocation of the ducts.

### ***UHI: Jem Taylor***

finally got the go-ahead for SJ5 upgrade activity, which is in effect a mid-life refresh; started pre-planning for next reprocurement.

### ***AbMAN: John Linn***

AbMAN is in the final stages of procuring new core routers suitable for SJ5 (2.5Gbps POS). It is currently proposed that these will be introduced

in the second half of June in order to move to SJ5 in early July. As AbMAN is already connected to two locations on SJ4, moving the IPv4 unicast should present little problem, initially in a primary/backup model for all prefixes. Work is underway investigating IPv4 multicast and migrating IPv6 from our current development Juniper router. Preparation of the two SJ5 RNEPs is progressing but nothing has been received from Verizon since the site visit.

***EMMan: Ian Griffiths***

The major activities over the last few months for EMMAN have concerned SJ5 and commercial development.

The Ciena WDM equipment has been installed at Nottingham Trent in a test configuration before moving to locations within the East Midlands in May/June.

The RNEPs for SJ5 are both at new locations (a new computer room and new site at the University of Nottingham and enhanced computer room at the Clifton site of NTU). Both those locations are due for completion by the end of April. Verizon is working with ntl to install new links to each of these locations.

The final microwave backbone link (Leicester to Northampton) is to be replaced by a dark fibre in the next 2 months.

A Commercial Development Manager (Pete Darby) was appointed in March and will be working on the commercial side of the MAN, initially for a year. A commercial pipe into the MAN is planned to be implemented in the summer.

A new connection to the National Space Centre has been implemented.

During 2006 it is planned to provide site resilience for all universities by having two locations at each university on the MAN backbone.

***LMN: Pete White***

**1. LMN Office and PoP move**

University of London is disposing of LMN's main PoP site at Guilford Street and LMN has to vacate these premises by the end of 2006.

Since December 2005 we are now at new offices in the University of Westminster, 50 Hanson Street. <http://www.lmn.net.uk/lmnmap.pdf>

LMN is also relocating the main PoP from Guilford Street to Stewart House, Russell Square and orders have been placed to effect this move during May/June 2006. The move is being overseen by the LMN technical group, and also a special project team, which apart from LMN is comprised of:

- \* Thus managing the core and tail circuit shifts
- \* Logicalis managing the routing requirements
- \* ULCC managing the PoP sites and rerouting of the SJ4 link
- \* UCL representing the Bloomsbury cloud of institutions and the LMN Technical Group

The LMN community has been advised of the timetable outline and affected institutions will be given updates well in advance of any circuit-affecting works.

## 2. SJ5 and the procurement of LMN 3

LMN is upgrading the core routing equipment (GSR12000) in readiness to receive SJ5 at 10Gbps. LMN would like to use load balancing on the two SJ5 connections to ensure both links are available and active as well as to relieve the load on the core network.

LMN's Technical Group is launching the procurement of the next generation network during 2006 and is currently investigating different topologies and delivery options for the core and tail circuits.

## 3. Upgrades and additions to LMN

LMN provided extra funding to upgrade all of our 38 FECs to a full 10Mbps and this programme is now complete. We are continuing to connect the Adult and Community Learning Colleges as required by UKERNA and have completed 7 out of the 12 ordered.

## 4. Services Development

LMN continues to develop a range of added value services for our community which have had a good take up by member institutions.

### A. PRIME

LMN, in partnership with Logicalis, is offering Proactive Remote Intelligent Management for Education (PRIME) services suite. This service provides institutions with a range of intelligent remote monitoring, maintenance and management solutions designed to maximise the performance of their ICT systems. PRIME optimises the resources and expenditure required to ensure IT service delivery supports the evolving needs of institutions and their users.

### B. Web Filtering

This Web Filtering Service provides all that is needed to understand and manage internet usage in a flexible way that suits LMN institutions. This service provides protection from harmful and inappropriate internet content, such as spy ware, with sophisticated filtering rules that can be applied to meet the needs of different users and groups. LMN felt this service may be of particular interest in the FEC sector where institutions have a duty of care to under 18s.

### C. InTechnology services

Our existing portfolios of online back up, archiving and web file facilities continue to be a great success. Currently we have over 15% of the LMN community using these services.

Further details of the range of services which LMN has or is developing are at:

<http://www.lmn.net.uk/serviceoutline.htm>

<http://www.lmn.net.uk/development.htm>