National Science Foundation, Directorate for Computer Information Science and Engineering
Division of Advanced Networking Infrastructure & Research (ANIR)

EuroLink
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July 1999 Monthly Status Report

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Tom DeFanti, Maxine Brown, Andy Johnson, Dan Sandin, Jason Leigh, John Jamison
University of Illinois at Chicago
Electronic Visualization Laboratory

A. Summary of Technical Activities

A.1. EuroLink Network Peering Status and Institutions

A.1.a. CERN

CERN is not yet connected to the Ameritech Advanced Data Services (AADS) NAP. There have been problems with the C&W building landlord granting permission for Ameritech to pull cable from the demarcation POP in the basement to the third floor where C&W's "A" POP and offices are located. UIC staff, C&W and Ameritech have been very diligent in trying to solve this problem, and as of August 5, the landlord gave permission to proceed. Service is expected to be turned up by mid-August, but promised no later than September 1.

A.1.b. IUCC

UIC staff worked with Israel/IUCC, Ameritech and GTE to bring the IUCC connection into the Ameritech NAP. IUCC peers with Abilene, CANARIE, and as of August 4, with vBNS. IUCC's T3 line experienced problems, and the carrier was going to try to fix it by replacing the satellite modems. Once the line is stablized, IUCC will announce its prefixes to STAR TAP peers.

A.1.c. NORDUnet

UIC staff worked with NORDUnet, Ameritech and Teleglobe to bring the NORDUnet connection into the Ameritech NAP. A bad ATM card in the NORDUnet Cisco router in Chicago caused delays in their connection coming up, but as of August 6, NORDUnet peers with vBNS.

A.1.d. RENATER2

No activity in July. RENATER2 has been peering with vBNS for some time now. They are very interested in using the vBNS+ to peer with NIH.

A.1.e. SURFnet

No activity in July. SURFnet has been at STAR TAP for some time now, but is not peering with the vBNS in Chicago. A route or two is coming through New York. JJ Jamison will look into this matter.

A.2. Engineering Services

J Jamison worked on the design and preparation of the STAR TAP ATM switch and IP router configurations. This switch and router will be used to provide Layer 3 IP service among non-US National Research Networks, including EuroLink networks, and US research networks. The service is scheduled to come on line in late August.

A.3. EuroLink Performance Analysis Tools

A group of UIC researchers with expertise in networking, virtual reality, and Petri Nets (graphical/mathematical modeling/analysis methods for concurrent systems) are working together to create a model of the network connections for Eurolink so they can make some predictions at both the network and applications layers about how tele-immersive data (e.g., audio, video, virtual-reality data) will work over the various networks.

At a planning meeting on July 28th, this group decided to investigate a number of performance tools out there to determine what would be appropriate to use, including: Bruce Ma's PCHAR path characterization software, the NETW network weathermap code from Internet2; Argonne's Netlogger (which CAVERNsoft uses), the UDP traffic generator, Dan Reed's Virtue/Pablo/Autopilot software, and Globus' gloperf and heartbeat monitor.

They recently got accounts on the IBM SPs at SARA, the academic supercomputer research institute in The Netherlands, in order to study the various network connections between The Netherlands and UIC.

B. Meetings Attended

July 20, 1999. JET (Joint Engineering Team) meeting, National Science Foundation, Arlington, Virginia. JJ Jamison attended and represented the interests of both the STAR TAP and EuroLink projects.

July 28, 1999. Ameritech meeting to discuss the delays in connecting CERN, NORDUnet and IUCC and how to prevent this from happening in the future. Ameritech made it clear they were in the process of reorganizing in order to better serve the STAR TAP community. Attendees from UIC: Tom DeFanti, Maxine Brown, JJ Jamison. From Ameritech: William Cannon, VP Sales Strategy and Network Services; Kimberly Price, VP New Product/Business Development; Jay Zollinger, VP Operations; Christina Fulton, Director of New Products-IP Networking; John Christensen, NAP Sales Engineer; David Savage, Sr. Acct Manager, government and education; and, Andy Schmidt, Business Development, STAR TAP.

July 30, 1999. Internet2 Routing Registry training class held at Merit in Ann Arbor, Michigan. JJ Jamison and Alan Verlo attended. Skills will be used to register EuroLink routes in the Internet2 Routing Registry.

C. Summary of Award Expenditures (July)

The spending rate is within budget. Notable activities for this month include:

- Work with UIC to execute the subcontract to Indiana University for NOC Services.
- Processed Israel IUCC invoice for annual $400,000 payment; IUCC received the wire transfer.
- Contacted RENATER2, NORDUnet, and SURFnet to submit their invoices. [RENATER2 and SURFnet's invoices were subsequently received and are being processed.]
- No NSF reimbursement for this fiscal year is expected by CERN.