

Subject: Re: revised minutes of the CCIRN meeting in Sophia
From: "Christian Huitema" <Christian.Huitema@mirsa.inria.fr>
Date: 25-8-1990 11:00
To: bostwick@vax.darpa.mil.internet.fr, /S=neggers/O=surfnet/PRMD=surf/ADMD=400net
/C=nl/@cs.ucl.ac.uk
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From: Christian Huitema <Christian.Huitema@mirsa.inria.fr>
Subject: Re: revised minutes of the CCIRN meeting in Sophia
Sender: huitema@jerry.inria.fr
To: bostwick@vax.darpa.mil.internet.fr,
/S=neggers/O=surfnet/PRMD=surf/ADMD=400net/C=nl/@cs.ucl.ac.uk
Cc: James Hutton
</I=J/S=Hutton/O=nikhef/PRMD=surf/ADMD=400net/C=nl/@cs.ucl.ac.uk>, European
CCIRN <eur-ccirn@rutherford.ac.uk>
References: <James Hutton's message of Tue>,
<9007241410.AA20629@nikhef.nikhef.nl>, <645394272.0.BOSTWICK@VAX.DARPA.MI>
Via: UK.AC.RL.GEC-B; 25 AUG 90 10:02:06 BST
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Draft minutes of the CCIRN meeting, 10-11 May 1990
INRIA Sophia Antipolis

Christian Huitema
Walid Dabbous

August 24, 1990

Draft minutes of the CCIRN meeting, 10-11 May 1990
INRIA Sophia Antipolis

Christian Huitema
Walid Dabbous

1.

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2. Welcome at INRIA

BB and JH welcomed the participants, and the following agenda was adopted.

- 1- Review of the minutes from the Ottawa meeting,
- 2- Updates for Europe (James Hutton), North America (Bill Bostwick) and Pacific (Torben Neilsen),
- 3- Changing situation in Europe,
- 4- Review of CCIRN Terms of Reference,

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- 5- Policy for Intercontinental Leased Lines,
- 6- Acceptable Use Statements,
- 7- Security Issues (CERT),
- 8- Fat-pipe - Status and future planning,
- 9- IP Coordination in Europe:
 - Administration within North America and Europe,
 - Status of IP connectivity,
- 10- Link management/Operational Procedures,
- 11- Development of technical coordination Requirements/Groups, Workshops, User Groups, Joint

Projects - OSI, etc,

12- Technical Presentation:

- Overview of U.S. Gigabit Networking Research (Ira Richer),

13- Other Business,

14- Next Meeting.

3. Review of the minutes from the Ottawa meeting:

A few corrections were sent to Kim Burke. Then, the "action items" were reviewed:

3.1. Review of Action items from OTTAWA minutes:

- 1- "Towards a national Collaboratory" now out.
- 2- Australian member for CCIRN: G. Houston.
- 3- Nordunet is being included in US-Europe connections.
- 4- Dialog has taken place on Intercontinental Leased Lines.
- 5- Burke did send draft policy on intercontinental leased lines. Draft CCIRN Policy on Intercontinental Leased Lines was ratified by NA CCIRN and EU CCIRN. If there is a disagreement it should be notified within a month otherwise it is considered as accepted.
- 6- Later
- 7- ICB discussions are taking place re multi-media

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conferencing;

- 8- Europe Ethics discussions have taken place.
- 9- No EC comments on ethics statements.
- 10- Cooper & Leiner are finalizing the ethics documents
- 11- A server has been installed by P. Kirstein at UCL; provides all CCIRN documents; details will follow
- 12- Send documents to P. Kirstein after OK from Bostwick or Hutton
- 13- "IXI Project Legal Issues" done.

14- Later in this meeting

3.2. Continuing action items from past meeting

4- Pacific region will also be invited to the CCIRN

6- CCIRN information sheet will be written by chairman

7- P. Kirstein proposed to accept the US acceptable use statements without changes.

8- P. Kirstein maintains a list of gateways. (Some corrections are to be done (Neilsen)).

15- Discussion between Villasenor & Harvey took place recently. Terms Of Reference to be ready in June.

19- IETF and RARE working group lists done.

4. Updates

4.1. European developments

James Hutton presented the recent developments:

- the RIPE initiative, which started about September 1989 is moving to become a RARE organization.
- EASInet is funded by IBM Europe; the GMD will manage the EASIGATE T1 link between EASINET and CERN.
- The Ynet project funded by EC, for European Research and Development (R&D) organizations (specially SME Small and Medium Entreprises).
- The 3-year implementation phase of the Eureka COSINE project started at Feb-90. Contract with RARE to establish the project management unit.

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- Several national and EC activities are trying to promote high bandwidth networks.
- The private X.25 backbone for EARN started its operation last year,
- The Pilot IXI service entered operational phase last month (Apr 90),
- Following the events in Eastern Europe and the move towards German unification, there is a strong demand for cooperation.

On the last point, one should note a remarkable increase of

interest for a cooperation with the USSR, e.g. from NASA.

4.2. North American developments:

Bill Bostwick reported the following developments:

- Attendance of Mexican networking at NACCIRN. High speed connections between the INTERNET and Mexico are planned.
- CA*net starts in Jun 90; Will run IP with several connections to the Internet. It will be used by NETNORTH, relaying BITNET protocols over IP, and also HEPNET, relaying DECNET over IP.

The informal FRICC is replaced by the "Federal Networking Council" (FNC). Its purpose are: Federal policy direction for NREN; coordinate federal nets; stimulate networking business; but not to control the international Internet network. Members are designated by their agencies. It is concerned with several protocols (IP, OSI, DECnet), and has the following characteristics:

- Chair: Dr. Charles Brownstein of NSF
- Executive chair: Bill Bostwick
- Members: DARPA, NASA, HHS, NSF, OSTP, DOE, NTIA, OMB, USGS, DOD, NOAA, DCA, NIST, GSA.

The FNC include several working groups, e.g. for Research (I. Richer, DARPA), Security (NIST), and the "Federal Engineering Planning Group" (FEPG) chaired by A. Villasenor, cochaired by S. Wolff and J. Cavallini. The FNC does not have a budget per-se, but will coordinate the networking investments of its members.

4.3. Pacific developments:

Torben Neilsen reported the following developments:

- Australian Academic Research Network (AARN) is becoming operational (May 90); 64 kb/s but will grow to 2 Mb/s in 18 months ; connect all universities; topology is two level star; center in Melbourne; administration is at Canberra.
- There are four 64 kbit/s connections between NA and Japan (WIDE + TISN + ICOT + ISR). A high speed backbone, WIDE, is put in place (Tokyo-Nagoya-Kyoto-Osaka) and all major universities are connected. The backbone uses TCP-IP, but the official policy supports a migration to OSI.

- There is in Korea an emerging national network SDN/KAIST; connected in May 90
- In New Zealand, UNINET connects all universities.

a consortium called PACCOM is being established as an "activity to build a PACific COMMunication network" (a regional Internet).

5. Changing situation in Europe

There was a general discussion on the changing situation in Eastern Europe and its impact on the research community.

6. Review of CCIRN Terms of Reference

The text was reviewed and agreed to be appropriate in the light of the actual and perceived role for the CCIRN.

At the request of Jaime Perez Vidal a statement concerning the use of standards was added. A number of minor changes were made to clarify the text and the revised text was adopted by the meeting.

7. Policy on Intercontinental leased lines

A revised text was adopted during the meeting. It can be found in Annex B.

The CCIRN intend to publish these guidelines in an RFC (action to be done by Phill Gross).

8. Acceptable Use statements

The discussion centered on the acceptability of traffic from commercial companies on the intercontinental lines. There is a demand for it, e.g. from NASA towards some European commercial companies, but the elaboration of a global "Acceptable Use statement" will remain an action item for the next meeting.

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9. Security Issues

Christopher Harvey presented the CERT: Computer Emergency Response Team. Its purpose is to assist in handling computer security related incidents. Its members are DARPA, CIAC, military and, informally, SPAN. Keven Mills is the FNC CERT representative. NIST now coordinates CERT.

10. Fat pipes

Two "fat pipes" are being installed between the US and the UK, and between the US and Germany:

- the UK fat pipe (at 512 kbit/s) is progressing. It will be established between UCL in the UK and the US "FIX East" (Federal Internet eXchange -- this is a new jargon), and should become operational by July 1990. It will carry a mix of traffic, using physical multiplexing. At least 128 kbit/s will be available for "infrastructure", or 384 kbit/s when no video-conferencing is running.
- The German fat pipe is also progressing (DOE), aims at mid Oct 90. It will also carry a mix of traffic, using physical multiplexing. At least 112 kbit/s will be available for "infrastructure".

A discussion took place on the precise mix of protocols that the fat pipes should support, it was recognized that one should ask to the European Commission to state its position regarding the acceptability of (ISO) CLNS and CONS protocols.

Enzo Valente exposed its request for the setting up of a fat pipe between Italy and the Internet, and asked the committee to inform him on "how to organize access points with the US", which Italy is ready to fund.

11. Discussion on IP coordination between Europe and NA

11.1. Administration within North America and Europe

Rob Blokzijl explains the role of RIPE, i.e. to "coordinate" rather than promote IP networking in Europe. RIPE should become a "body" within RARE after the Killarney workshop. The data base collected by RIPE shows more than 500 IP networks in Europe.

There is a general need for coordination, e.g. with the IAB and the IETF.

11.2. Status of IP connectivity

There is a North American demand to increase the

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connectivity with some European countries, namely the members of Nordunet, France, Italy and Greece. It is pointed out after discussion that contacts with the Euro-CCIRN cannot replace bilateral coordination with the national networks.

12. Link management/Operational Procedures

CCIRN request from Phil Gross an action along with European colleagues to report back through the mailer on this topic.

13. Development of technical coordination

Three workshops had been proposed between the FRICC and RARE:

- A workshop on the interoperability of ISO CONS and CLNS networks (transport gateways) will be held before the next meeting of the CCIRN,
- A workshop on how to develop X.500 networks is scheduled,
- A workshop on high speed networking did not fulfill its promises, as the term high speed was understood as Gbit/s on one continent, and misunderstood as Mbit/s on another.

Regarding joint projects, Bill Bostwick proposes to hold an "engineering workshop" the 22 and 23 of October, just before the next CCIRN, with members of the FEPG and engineers from European networks. There is also an opportunity encourage small scale experimentation on "multi-network protocols", e.g. for the introduction of OSI protocols in the US.

14. Technical Presentation

Overview of U.S. Gigabit Networking Research, by Ira Richer.

15. Other Businesses

Bill Bostwick and all the members of the CCIRN thanked James Hutton, who is resigning from the RARE secretariat, for his contributions to International Networking.

16. Next Meeting.

Will be held the 24 and 25 October 1990 in Santa-Fe. A technical day on Gbit/s applications will take place the 26.

The first meeting of 1991 will be held the 21 and 22 May at a place to be chosen in Europe.

ANNEX A

COORDINATING COMMITTEE FOR INTERCONTINENTAL RESEARCH NETWORKING (CCIRN)

1. Terms of Reference

The purpose of the CCIRN is to agree and progress a set of activities to achieve inter-operable networking services between participating entities (currently North America and Europe) to support open research and scholarly pursuit. Policy, management and technical issues will be examined, based on agreed requirements. More precisely, the committee aims to:

- a. stimulate cooperative intercontinental research by promoting enhanced interoperable networking services, specifically
 - promoting the evolution of an open international research network in line with official policies on the use of international standards,
 - coordinating and facilitating effective use of the international networks to enhance the quality of research and scholarship.
- b. optimize use of resources and to coordinate international connections of the networks represented on the CCIRN
- c. coordinate development of international network management techniques
- d. exchange results of networking research and development

2. MEMBERSHIP

CCIRN members should represent an organization with an active interest in developing a continental network with the aims described above in the section 1 (Terms of Reference).

In North America these organizations are Federal Agencies which form the Federal Internet, initially: DARPA, NASA, DHHS, DOE, NSF and the IAB and a representative from the Canadian Research Ministry. The North American CCIRN takes responsibility for assembling the appropriate members.

In Europe these organizations are those which promote cooperative international networking. Initially, RARE, COSINE, EARN, EUNET, HEP and CERN, SPAN and ESA, the CEC and the ICB. The RARE Executive Committee takes responsibility for assembling the appropriate members.

Observers may be invited at the joint discretion of the co-chairs.

At its meeting 10/11 May in Sophia-Antipolis, the CCIRN adopted the following guidelines.

1. The CCIRN considers that improved co-ordination of the ordering and operation of intercontinental leased lines will have significant benefits in terms of cost saving and improved service levels for the research community.
2. It expects its members to inform and consult the CCIRN on the future plans of the organizations which they represent, in respect to the above. The CCIRN would expect proposals for new leased lines to take account of the following guidelines:
 - a) Leased lines should be shared to the extent that this is permitted by the applicable national and international regulations and the policies of the funding organizations.
 - b) To the extent that intercontinental links are considered infrastructural, an equitable (not necessarily equal) sharing of the costs should be negotiated, taking into account all costs involved in network connection and operation. In such negotiations, appropriate weight should be given to the benefits of international infrastructure.

To the extent that links are established for specific projects, they should be funded by these projects.
 - c) Links that are used for infrastructural purposes should be connected at the highest appropriate level in the "network hierarchy."
 - d) The proposal should include a technical review of the effect the link is expected to have on the interconnected networks.
 - e) Operation of the link should be on the basis of an agreed written document. It is preferable that, if possible and appropriate, day-to-day management should be the responsibility of a single organization.
3. The application of these guidelines to existing leased lines will be considered in the light of experience.

Explanatory notes:

- 1) A link is a service operated over a leased line and a leased line may well carry several links.

- 2) For the purposes of this paper, infrastructural links are those which are available for general purposes.

