Subject: Final Draft Minutes CCIRN Brussels February 93
From: cozanet@rare.nl
Date: 15-4-1993 19:32
To: ccirn@lbl.gov
CC: eccirn-o@nic.surfnet.nl

Dear CCIRN members,

Since I circulated the first draft of the CCIRN minutes on 24 March, I have
received comments from Barry Leiner and Kilnam Chon, which were circulated
to the CCIRN list, and since then, nothing. So I assume you are all happy
with the draft and I hereby append a final draft, incorporating Barry's and
Kilnam's comments, to be ratified at the next CCIRN meeting.

With kindest regards,

Anne

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FINAL DRAFT MINUTES   ref.RSec(93)063-ac
CCIRN Meeting Brussels   Amsterdam, 14/4/93
18 & 19 February 1993

List of Participants

Shoichiro Asano	NACSIS	Japan
Rob Blokzijl	RARE (RIPE)	Europe
Bill Bostwick	Dept Energy	USA
Kilnam Chon	APCCIRN/ANC	Korea
Bob Collet	NSF/ICM	USA
Anne Cozanet	RARE	Europe
Elise Gerich	IEPG (Merit/NSFnet)	USA
Steve Goldstein	NSF	USA
Keunhee Han (observer)	KREONET	Korea
James Hutton	RARE (JANET)	Europe
Simon Holland	CEC	Europe
Haruhisa Ishida	University of Tokyo	Japan
Tatsuo Kaida (observer)	NACSIS	Japan
Tomaz Kalin	RARE	Europe
Daniel Karrenberg	RARE (RIPE NCC)	Europe
Peter Kirstein	ICB (UCL)	UK
Barry Leiner	IAB (USRA)	USA
Christian Michau	RARE (RENATER)	Europe
Kees Neggers (chair)	RARE (SURFnet)	Europe
Akio Okuda (observer)	NACSIS	Japan
Glenn Ricart	FARNET	The Americas
Michael St Johns	DARPA	USA
Allyson Showalter	NASA/Sterling Software	USA
Bernhard Stockman	IEPG (SUNET)	Europe
Sven Tafvelin	RARE (Chalmers Institute)	Europe
Vincent Taylor	DND	Canada
Gustav Thommes	CEC	Europe
Tony Villasenor	NASA	USA

Kees Neggers welcomes all the participants and introduces himself.
Each participant then introduces him/herself.

1.   Approval of Agenda

The following agenda is approved:

1.   Welcome and Approval of Agenda
2.   Minutes of previous meeting (Tokyo)
3.   Updates from Regional Chairmen
4.   GIX
       - route server development project
       - GIX prototyping
       - organisation and funding
5.   NIC's and INTERNIC
       - Internet Registration
       - global coordination
       - responsibilities
       - root name arbitration
6.   Assessement of CCIRN
       - globalisation
       - management and organisation
       - relation to IEPG
       - commercial operations
       - scope and future role
7.   CCIRN relations with Internet Society/IAB/IETF
       - Internet Operations Board
       - Internet Users Forum
       - commercial networking
8.   Review DARPA/NSF/ESPRIT conference follow-up
9.   X500 and video conferencing
10. Collaboration in funding R&D activities
11. IEPG report
12. Review Intercontinental Link Coordination
       - connections to Russia and CIS
13. Next Meeting

Bob Collet only attended the meeting until item 3 included.

Bill Bostwick makes a formal apology to Bob Collet and the CIX
Association for the lack of coordination and agreement within the
CCIRN on the acceptance of commercial network providers as observers.
The CCIRN recognises the need to coordinate with commercial network
providers and intends to address this issue.

2.   Minutes of previous meeting

The minutes of the last CCIRN meeting held in Tokyo in June 1992 are
approved and Kees thanks the various contributors to those minutes.

3.   Updates from regional chairmen

Europe

For Europe, Kees Neggers reports that a new European delegation to
the CCIRN was appointed by the RARE Council of Administration at
their last meeting on 4/5 February, as follows:

Kees Neggers   - chair
Tomaz Kalin   - RARE Secretary General
Jaime Perez Vidal - CEC
members: Rob Blokzijl, James Hutton, Christian Michau, Sven Tafvelin,
the future Director of the RARE Operational Unit, and, as reserve,
Fernando Liello.

Kees asks the CCIRN's approval that Peter Kirstein should continue
to represent ICB on the CCIRN, which is unanimously granted.

The European academic and research networking community seems to have achieved real political attention with the set up, by the CEC, of a meeting of high level officials (HiLOG) planned for 11 March, following on last year's ECFRN and Rubbia reports.

Simon Holland reports that a High Performance Computing and Networking proposal is being prepared for the European Council, to build on what has already been achieved, in cooperation with RARE.

The RARE Operational Unit has been set up as a limited company and will be located in Cambridge (England). The OU Steering Committee is currently recruiting the management. RARE is already acting on behalf of the OU, until it becomes a legal entity, and some services (the COSINE ones) are already available. The European Commission granted some funds to facilitate the start-up of the OU: a contribution to the RIPE NCC funding is included in that grant. By the end of this year, a 2 mgbps pan-European infrastructure, including IP, should be in place. The OU will provide a managed backbone between the various European networks.

Kees Neggers further reports on the developments within EBONE, which has been strengthened and will continue in 1993, now also including transatlantic connectivity. The EBONE Consortium of Contributing Organisations (ECCO) has agreed that EBONE should concentrate on the global interconnect function. The first target for the European research backbone function is EuropaNET, successor of COSINE's EMPB. The COSINE project has been extended till 1 July, but most activities will end on 31 March. The RIPE NCC will continue for at least the whole of 1993 in its current form.

North America

For North America, Bill Bostwick reports that the last meeting of NACCIRN addressed such topics as the assessment of the CCIRN and connectivity to Russia (NSF, NASA and DOE), together with internal CIS connectivity using current infrastructure as much as possible.

For Canada, Vincent Taylor reports the setting up of CANARIE, which involves an upgrade of CA*NET, including evolution of testbeds.

Steve Goldstein reports that Mario Martinez has been appointed network coordinator for Mexico, working hard on internal and international connectivity.

Bob Collet of ICM and advisor to NSF makes a slide presentation - copies of the slides are distributed. ICMnet is one infrastructural net; Sprint provides international connectivity for NSFnet, including routing coordination. NSF connectivity with Canada is being discussed with CA*NET.

Asia & Pacific

For the Asian and Pacific region, Kilnam Chon, elected chairman of APCCIRN at its first official meeting held in Honolulu in January 93, reports that the terms of reference have been defined, that a list of documents is available and that they have been busy compiling data on the various APCCIRN countries' networks.

The APCCIRN area itself is still to be defined. At present, Pakistan is at the most western point of the region which stretches to the west coast of North America. It seems to be too wide geographically: travel time could be used as a criteria to limit the region, but of course whoever can contribute is welcome to join.

Work items include an APNIC experiment for 6 months to one year;
internalisation and localisation of character sets; funding and
charging models; and the UNESCO project for developing countries.
Jun Murai has been appointed APEPG chair.

An APCCIRN meeting will be held prior to each CCIRN meeting.

4.   GIX

Daniel Karrenberg gives a presentation with handouts on the
background of the European "Route Server" project, which lead to the
idea of a Global Internet eXchange (GIX), a neutral interconnect to
which any network provider is free to bring their router, within
which any network provider is free to peer with any other network
provider: an interconnect, AUP free, designed to enhance access and
connectivity on a global scale.

The concept of Global Internet Connectivity came out of the IEPG
meeting in Santa Fe in November 1991: after two further meetings, a
"Proposal for Global Internet Connectivity" was written by Almes,
Ford and Lothberg. Version 3 of that paper is currently being used.

There are three main components for the project:

- the physical "GIX" itself
- the "route server"
- the "routing registry" (database)

As far as implementation is concerned, we are now at week 7 of the
plan and Daniel reports that they are on time: the routing registry
paper is ready, the procedure for service providers is ready and
they have started to populate the RIPE NCC database (about 100
networks so far). The location for the pilot is ready, with
equipment funded by SUNET. They will make a presentation at IETF
Columbus and they are confident of the success of the project.

After Daniel's presentation follows a discussion on whether IETF is
the right body to pursue this initiative. Elise Gerich does not
think that a plenary presentation at IETF would be a good idea:
relevant IETF working groups are more appropriate and it is the IEPG,
in cooperation with IETF, which should progress the implementation of
the project. The GIX project is using existing interconnections,
routing is not being changed; the project does not require any new
technology or new protocols - it is an implementation, therefore does
not need to go through the IETF channel.

However, Barry Leiner asks whether the IAB could be briefed on what
is happening, which Daniel Karrenberg offers to do.

As Bernhard Stockman remarks, the issue is not a technical one, but
a financial one. There is just enough funding to last until the
next CCIRN meeting. The other main issue is that of the management
of an operation GIX: how to manage a GIX or a multiple GIX, what
should the long term model be?

Barry Leiner suggests that the CCIRN is the right body to decide on
management, funding and coordination of such a project and Glenn
Ricart suggests that the CCIRN should decide now on its role in this.

As a management model, the idea of a cooperative is discussed, taking
EBONE as an example. The three main components of the GIX (the
physical interconnect, the route server and the routing registry)
could be managed separately as cooperative efforts, but competition

should be stimulated, in order to avoid a monopoly situation, and
equal opportunities should be given to all participants, R & D as
well as commercial providers.

The CCIRN supports the GIX project and is prepared to act as the
management body for the project, to act as funding and policy
coordinating organisation. The implementation of the project will
continue to be progressed by the IEPG who will report regularly to
the CCIRN.

The CCIRN should therefore start working on a cooperative funding
model for the GIX.

5. NIC's and INTERNIC

    - Internet Registration Procedures

Daniel Karrenberg gives a presentation with overheads.

There is a problem of coordination between European and US NICs, and
getting timely reports from the NICs. As discussed in item 4 above,
the route registry function is also necessary.

    - global coordination

As far as the INTERNIC is concerned, Steve Goldstein reports that
the IP registry function was subcontracted to Network Solutions Inc.,
Network Information Services to CERFnet, and X500 white pages service
to AT&T. All three groups work together, with CNRDR working as a
clearing house. Users are going to have to contribute an annual fee
for address space and internet registry services, but this issue has
not been defined yet.

The CCIRN would like to see a written proposal for charging
principles. Such proposal should be agreed on by the CCIRN.

The CCIRN feels that pricing for delegated registries should be much
different from those given to end-user organisations approaching the
InterNIC itself. Kees Neggers suggests the regional NICs should
discuss this topic in preparation for the discussion to come from the
US registry. Tony Villasenor agrees to represent FNC for this
particular issue at the next CCIRN meeting.

Kees Neggers also asks for agreement on the principle that the North
American regional registry (Network Solutions) be treated in the
same way as all other regional registries in their relationships
(including funding) with the root NIC. The CCIRN supports this
principle.

    - responsibilities

The meeting discusses funding models for the root-NIC and distributed
registries. Charging for address space is a dubious aspect of the
issue, models for cost recovery another. Regional registries shall
however be treated on equal basis. Professor Ishida reports that, in
Japan, they are working on a charging model for local registry based
on the size of user networks. They will be forming a consortium of
networks in April. Rob Blokzijl reports that the RIPE NCC is planning
the same kind of scheme.

Daniel Karrenberg wishes the CCIRN to propose a funding model. CCIRN
members should therefore think about possible funding models.
Regional NICs should liaise with each other and regional registries
should make the necessary information available.

- root name arbitration

Barry Leiner presents the IANA top level domain proposal to create an
Internet DNS Names Board: IDNB, a review board to act as panel in
case of disagreements (see also RFC 1154). The board would only be
called into action in case of unsolvable disputes.

The IDNB will be established by IANA and members of the board
appointed by IANA, but CCIRN members are invited to identify potential
IDNB members. The CCIRN is therefore asked to send Jon Postel
whatever comments they have or names of potential board members.

The CCIRN, except James Hutton, is in favour of the establishment of
the IDNB.

The structure for the local routing registries is discussed as well
as the need for coordination of whois databases at registries.

6. Assessement of CCIRN

The CCIRN terms of reference of 21 May 1990 [CDP(90)03] are discussed.
Since May 1990, the CCIRN has been operating according to its terms
of reference for the benefit of research networking. The only
difference is that the committee now includes the Asia-Pacific
region, as well as North America and Europe. The CCIRN seems to be
working without a central secretariat. It seems worthwhile to
meet and discuss coordination matters. A lot can be learned from
such discussions and through these, some kind of synchronisation can
be achieved. However, more work could be done by the CCIRN via
electronic mail discussions between meetings.

The question of whether commercial providers should be invited to
CCIRN meetings is raised again. Steve Goldstein thinks that some
form of liaison should at least be added. James Hutton suggests that
liaison with commercial providers could be experimented on at the next
CCIRN meeting. Christian Michau supports James's suggestion,
especially in the context of the GIX. However, Kees Neggers remarks
that if commercial providers were to be invited to meetings, it would
be for operational issues, which fall under the remit of the IEPG.
The CCIRN is a policy discussion forum and policy issues should be
discussed in the absence of potential suppliers: there are too many
competing general providers and, to be fair, we would have to invite
them all, which is totally impractical.

At their meeting on 14 January 1993, the NACCIRN made the following
resolution:

"The CCIRN commends the IEPG for its wisdom in broadening its base of
participation by including general (non-AUP-restrictive) service
providers at its November 1992 meeting. The CCIRN encourages the
IEPG to continue broadened participation and coordination of service
providers."

The CCIRN encourages the IEPG to invite general providers to their
meetings, whenever it seems necessary. In case of doubt, the IEPG
should not hesitate to consult the CCIRN chairs.

7. CCIRN relations with Internet Society/IAB/IETF

Barry Leiner presents the plans for INET93 to be held in San Francisco
in August. Kilnam Chon remarks that the price for the developing
countries workshop is far too high and that, whether sponsorship is
available or not, participants from developing countries should be

able to pay themselves. Kilnam will send Barry a note on this issue.

Barry then gives a brief synopsis on what has been happening between
the IAB and the ISoc since Tokyo. At the first meeting of the
Internet Society in Kobe, the IAB was merged into ISoc and renamed
Internet Architecture Board. ISoc formally adopted the IAB charter,
which means that IAB and IETF were adopted into ISoc.

The IAB met to discuss the explosion of the Internet and addressing
problems. This was misinterpreted as IAB dictating IETF, which
resulted in a major restructuring and the creation of the POISED
working group. POISED recommended that the IESG should approve
standards, whilst the IAB would provide architectural review of
proposed standards. ISoc will have overall responsibility and
appoint IAB members; IAB will appoint IESG members and will be
responsible for the Internet architecture. An agreement should be
reached before the next IETF meeting in Columbus in March.

Additionally, a nominating committee, selected randomly from Internet
community members, has been formed, with Jeff Case as chair, to
nominate members of the IESG to be approved by the IAB, and to
nominate members of the IAB to be approved by ISoc.

As far as technical activities are concerned, Barry will prepare a
summary of IETF actions and funding issues likely to have an impact
on CCIRN, before the next meeting of the CCIRN.

As for the IRTF, which comprises four research groups, they are
pleading for Europeans and Asians to join - they want active members.

- liaisons with other standards organisations

The objective is to have ISoc recognised as a formal standards
organisation, or at least have ISoc standards recognised as official
international standards via existing standards organisations.

The CCIRN expresses general support for this objective.

Discussions are under way with ISO, especially in the context of
ISO working groups SC6 on lower layers and SC21 on architecture and
upper layers. Discusions are also under way with CCITT and ITU to
reach liaison relationship.

Barry will forward to the CCIRN via email a summary of the discussions
between ISoc and ISO, so the CCIRN can help the process.

- Internet Users Forum

Barry Leiner presents the ISoc's proposal for an Internet Users Forum,
which was originally a suggestion made by Brian Carpenter, to enable
adequate discussions of users requirements and provide input into
standards process.

The CCIRN feels that the term "user" should be clearly defined;
Kees Neggers suggests that such a forum should not be limited to
Internet only.

- Internet Operations Forum

Sven Tafvelin presents a proposal for an Internet Operations Forum
within ISoc. This would be a discussion forum for network operators.

Sven's concern is that engineering seems to have acquired high
prestige whilst operations are seen as lower profile. He feels

that both should be on the same level and come under a high integrity
umbrella, with on one side IAB -> IESG -> IETF and on the other side
IOB -> IOSG -> IOTF.

Barry Leiner does not think that this high integrity umbrella should
be ISoc: a new group should perhaps be formed to take on that role.

There are uncertainties about the relationship of such body with
CCIRN because CCIRN is focussed on Research, Development and
Education, whilst ISoc has a broader scope. This brings us back to
the discussion whether CCIRN should involve commercial/general
providers or not. IEPG could act as such an operations forum, since
it is now broadening its scope to include all kinds of network
operators serving the Research, Development and Education community,
but whether IEPG evolves into IOB/IOTF is still a very hypothetical
possibility.

In any case, CCIRN will remain a coordinating body for the Research,
Development and Education community.

8.   Review DARPA/NSF/ESPRIT conference follow-up

The workshop happened two and a half years ago: Peter Kirstein gives
a status report on the workshop's recommendations.

- 2 Mbps infrastructure in Europe
  now happening

- Link coordination
  is taken care of by the IEPG

- X400/X500/ODI
  some activities being progressed within the IETF

- Visualisation
  nothing happening

- File Transfer
  nothing happening

- Conferencing
  being progressed within IETF but without any official backing

- Security
  being progressed within IETF

- Collaboration on Very High Speed Nets
  nothing happening; IETF seems like the right place for this item

There does not seem to be any formal follow-up programme, but there
is obviously still some interest in cooperation in some of those
areas.

9.   X500 and video conferencing

- X500
A number of pilots and services are operating in different parts of
the world, such as the PARADISE project under COSINE and also under
the VALUE programme, and some US activities under the FOX project.
23 countries are involved, but the activities are very patchy and the
quality and reliability of the data is poor because of the lack of
uniformity and coordination. Bad software, user-unfriendly
interfaces could be the reason why individual institutions are not
filling in their directories and/or keeping them up-to-date.

The CCIRN recognises the importance of those services and the fact
that additional non-technical support is needed. CCIRN members
should endeavour to collect that support.

- Video Conferencing

There are some on-going European projects which include a very limited
number of people, but it is difficult to cooperate with the US
depending on technical standards. There have been talks of progressing
some of the issues within the IETF but it seems that there are
different expectations.

10. Collaboration in funding R&D activities

On behalf of ISoc and Vint Cerf, Barry Leiner asks the CCIRN's
opinion on how to proceed for a collaborative project and co-funding.
He is skeptical about being able to fund a project with joint
intercontinental funding. Sven Tafvelin disagrees giving the example
of Sweden, a non-EEC country, still successfully joining in Esprit
projects for example. But it is true that there exists today no
infrastructure model for intercontinental co-funding of projects,
which makes collaboration hard to achieve.

11. IEPG report

Bernhard Stockman reports that the draft IEPG report 92 and draft
workplan still have to be confirmed by the IEPG.

Global routing has received most of IEPG's attention lately, with the
GIX pilot project (see above); global DNS, to enhance efficiency of
DNS systems, is also high on the priority list - a new DNS working
group is being formed within IETF; global address registration also
has high priority for IEPG, with two RFCs on the way (RFC 1366 and
1367) - there are plans for an IETF applicability statement (RFC plus
internet draft), architecture for IP address allocation as a whole
set of documents; as far as allocation delegation of addressing
function is concerned, RIPE NCC is at stage 3 of RFC 1367;
coordination planning of intercontinental links will be optimised by
GIX as neutral interconnection point. Operational impact of IP
transitions is a new item on the IEPG agenda.

As far as operational issues are concerned, not much has happened
about NOC/NIC (RFC 1297). They are still working on RFC 1404:
gathering, retrieving and storing of statistical information for
network providers. Regarding measurement of traffic and transit flow
on intercontinental scale, some activities were reported on in San
Diego but more effort is needed (through RIPE, IETF...) and there is
a need for equipment and manpower.

Another open item is scaling and forecasting. The CCIRN was to fund
somebody to survey the network providers, asking for their predictions
as to the number of networks and routes they have and expect to have
in a year's time. This would provide valuable input for global
network planning. NIC and RIPE NCC are compiling statistics on
number of connected hosts. IEPG should provide the CCIRN with a
short project description, which the CCIRN can use to attract
resources.

Finally, IEPG has been working on enhanced applications and services,
together with the General Internet Service Specification (GISS),
which was started at the Prague RIPE meeting in January 1993 to set
specifications for providers quality of service. The GISS work is
part of the RARE Technical Programme and is executed at the RIPE NCC

in Amsterdam. Presentations and status reports are planned for the
Columbus IETF in March and JENC4 in Trondheim in May.

Elise Gerich summarises by saying that IEPG has focussed mainly on
IP addressing issues, the GIX project implementation and the newest
activity, statistics and measurements, on which Torben Nielsen and
Olivier Martin are working. They did not focus so much on operations,
NIC/NOC coordination, applications, multiprotocol integration and
enhanced network integration because these issues are being dealt
with by other bodies.

The membership of the IEPG is fine as it is; the problem is that it
is a voluntary organisation and that actions are not being followed
up. CCIRN should try to arrange more funding for IEPG members. IEPG
should perhaps also be clearer in what they expect from the CCIRN by
communicating their problems more often and more clearly to the CCIRN.

James Hutton suggests that the IEPG draws up an executive summary of
problems, expectations, etc... for the CCIRN.

Simon Holland expressed the possibility of the CEC funding IEPG
coordination activities. This may only be relevant to Euro-CCIRN.
Euro-CCIRN, via RARE, could approach various organisations, national
networks for potential funding.

12. Review Intercontinental Link Coordination

- connections to Russia and CIS

Russian connections are now being planned and implemented from NASA,
DOE, NSF and Europe.

(a) NASA

Allyson Showalter makes an overhead presentation.

There are mission agencies and infrastructural agencies. NASA have
a long list of sites in Russia to which they plan to connect. The
Space Research Institute in Moscow is of prime interest. There
should be a national backbone in Russia hooking up all the sites.
Planned capacity is 64/128 kbps links, which could go up to 256 kbps.
Access from outside NASA will be allowed. The resources, by default,
will be open. Hopefully there will be a coordination plan with
Europe.

Russian representatives will visit RIPE in Amsterdam. Tony Villasenor
will make the NASA information available to IEPG (via ftp) as soon as
it is final, which should be within a few days.

(b) DOE

The DOE has been working along the same line as NASA and there might
be a possibility that DOE and NASA join forces. DOE have a draft list
of sites which is not public yet. 256 kbps is required now and, if
combined with NASA, a total of 512 kbps will be needed, but will
probably soon afterwards be upgraded to T1. An Italian HEP link on
64 kbps to Russia has been proposed. The DOE has announced an
upgrade to 512 to Germany.

James Hutton will ask Klaus Ullmann to liaise with Bill Bostwick on
this German link.

(c) NSF

Steve Goldstein reports that NSFnet will not be putting any links to
Russia as such, but has common interest with the International
Science Foundation of the former Soviet Union, who are going to invest
100 million dollars over the next two years to rescue and stabilise
science in the former Soviet Union. They have asked Steve to advise
them on networking issues.

There are two proposals:

- Sprint E1 line to Moscow of which a 64 kbps channel will be used
  to connect to a router at Sprint's Moscow office.

- a Moscow/NORDUnet link on 64/128 kbps.

These links will be open for anyone to connect to.

Steve offers to email Simon Holland his paper on how ISF decided for
networking.

(d) NATO

Tomaz Kalin reports that there have been contacts with TNO/SHARP,
represented by De Jong. NATO money is available for local
distribution. The lines are non-military ones.

(e) Europe

Rob Blokzijl reports on the various links:

- DESY <-> Moscow now 9.6 kbps. DFN and DESY have ordered upgrade to
  64 kbps. A microwave link system will connect the various
  institutes to the State University of Moscow where the link is
  going to be rehomed.

- A 64 kbps link from Grand Sasso (100 km from Rome) to Dubna near
  Moscow has been ordered.

- A 64 kbps link Helsinki <-> St Petersburg to RELCOM in Moscow as
  part of EUnet has been ordered.

All these links are open as infrastructural links.

Ukraine/Kiev are talking to Polish NASK regarding a connection to
NASK and further to the Polish EBONE connection.

Baltics are connecting over BALTBONE. Latvia is currently the weakest
link. UNESCO is providing a half-dozen CISCO routers.

There are also plans for DOE/NSI T1 links to Germany and ESRIN in
Italy, and DOE T1 to CERN.

Of the German DOE link, 256 will be tapped off to EuropaNET for
Eastern European traffic.

Simon Holland reports on the CEC technical assistance programme,
targetted at nuclear safety for the first year, infrastructure for
the second year. There is a possibility for a joint DG12/DG13
proposal.

13. Next Meeting

The next CCIRN meeting will be held after INET93 in San Francisco in
August. Barry Leiner will organise the venue. There will be a joint
session with IEPG.

Kilnam Chon would like to see participation from South America and
Africa at the San Francisco CCIRN meeting.

Kees then closes the meeting after having expressed his and the
CCIRN's gratitude to Simon Holland for hosting the meeting.

The End
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Anne Cozanet
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