EARNEST,

 the EARN Newsletter

 Num. 3, October 1992

 Published by the

 EARN Association\*

Editor: Hans Deckers\*

Special thanks to Daniele Bovio\*, Hans-Ulrich Giese\*, Turgut Kalfaoglu\*,

Greg Lloyd\*, Marco Sommani\* and Avi Cohen\* for their contributions.

Items which are followed by an asterisk (\*) are explained in the

glossary at the end of this newsletter.

Table of Contents:

 1. Editor's corner

 2. News from the BoD and the EXEC

 3. Changes in topology

 4. The Completion of EBONE92

 5. Statistics

 6. Distribution of EARN tools

 7. EARNCC - an NJE node for the EARN Office

 8. New Nodes and Deleted Nodes in the Network

 9. Server World

 10. NSC'92 - The Network Services Conference 1992

 11. The User Survey

 12. Upcoming events

 13. EARNEST Glossary

Next issue: December 1992

 The deadline to submit articles for publication is on 2 December

 1992.

Newsletter information:

 If you would like to receive the EARN Newsletter automatically, send

the command:

 SUBSCRIBE EARNEST First\_name Last\_name

to listserv@frors12.bitnet. To consult the previous issues, send the

command:

 GET EARNEST NEWSLTOC

to listserv@frors12.bitnet. The last issue is also available from

Netserv\* in the file EARNEST NEWSLET, send the command:

 GET EARNEST NEWSLET

to the nearest Netserv; a copy of the last issue is also kept in the

file EARNEST NEWSLET on listserv@frors12.bitnet.

 The EARN Newsletter is available via anonymous FTP\* on ftp.unt.edu in

the directory /pub/netmonth thanks to Philip Baczewski, NetMonth\* Editor.

 The following commands will allow you to access the newsletters via

anonymous FTP:

 ftp ftp.unt.edu

 <enter the word anonymous for the username>

 <enter your network address for the password>

 cd pub/netmonth

 dir <to see the list of available files>

 get <filename> <to retrieve a particular file>

 This issue of the EARN Newsletter is named earnest.1992oct.

 The EARN Newsletter is included on the CONCISE\* service, thanks to

Juliana Evans, from the CONCISE helpdesk.

 If you want to retrieve the newsletters from this service by e-mail,

send the commands:

 start

 goto /networks/earn/earnest/issue-#

 info

in a piece of mail to concise@concise.level-7.co.uk, where '#' is the

number of the issue you want.

 For interactive access over X.25 networks dial:

 IXI network address: 2043 3450 3999 15

 Public X.25 address: 2342 3440 0193 15

Using this method, you will find it under NETWORKS (top-level index item

No. 23), then type 493 (for EARN), 495 will lead you to EARNEST and 496

(issue-1) will bring up the document.

 New project? New tool? New views on the network? Express your ideas

in EARNEST! Submit articles for publication, ideas for articles,

letters, etc., to Nadine Grange\* (grange@frors12.bitnet).

Copyright EARN Association, October 1992.

-----------------------------------------------------------------------

1. The Editor's corner

 -------------------

 by Hans Deckers (deck@frors12.bitnet)

Enjoy EARNEST number 3. Please continue to give us your comments. I

would also like to say again that we would appreciate receiving more

contributions from our readers, including 'letters to the editor'.

In the framework of their collaboration, EARN and RARE\* will from 1993

on, jointly publish the "RARE/EARN Teletribune". This publication will

consist of three parts: (1) a section with refereed papers and letters

to the editor, (2) the RARE update and (3) (last but not least :-) ) our

dear EARNEST. EARN and RARE will retain editorial control or

respectively EARNEST and the RARE Update. Initially the Teletribune will

be distributed via e-mail only.

2. News from the BoD\* and the EXEC\*

 --------------------------------

 by Hans Deckers (deck@frors12.bitnet)

A. Highlights from the EARN Executive\* meeting of 20 and 21 September in

 Montpellier.

- The agreement regarding the RARE/EARN Teletribune negotiated by

President and staff of both organizations was approved. A call for

candidates to sit on the Editorial Board will be sent out to the

community soon.

- The Executive will submit for BoD approval a document called

"Operational Procedure for connection of an new country or a site to

EARN".

- It has no intention, at this point in time, to recommend to issue a

call for tenders for EARN operations. It will propose to the BOD a set

of recommendations regarding NJE\* and NJE applications on other

platforms and about net consulting.

B. The next EARN Board of Directors\* Meeting

The next BoD meeting will take place on 5 and 6 November in Pisa. This

meeting is an election meeting, where a new Executive will be elected,

including the EARN Officers (President, Vice-President, Secretary

General and Treasurer).

3. Changes in topology

 -------------------

 by Daniele Bovio (hi@frors12.bitnet)

Only small changes in the EARN international topology happened There

have been only minor changes in the EARN international topology since

the last issue of EARNEST, but they are particularly important because,

thanks to these, a full mesh configuration among the EARN core sites\*

has been finally achieved in September| The last missing link between UK

and CERN (UKACRL to CEARN) came into production with the 9210 version of

the BITEARN NODES\* file.

With the completion of the full mesh structure the Regionalization Plan

(also known as EARN2) can be considered completed and regarded as a

resounding success. It has resulted in a major service improvement for

the EARN users.

During October (9211 cycle) another step forward has been made replacing

the DEARN-GBGBOX-UKACRL connection with a direct VMNET link between the

two core sites, DEARN-UKACRL.

4. The Completion of EBONE92

 -------------------------

 by Daniele Bovio (hi@frors12.bitnet)

Another major step toward the improvement of the European connectivity

has been made at the end of September.

The EBONE92\* backbone has reached completion thanks to the installation

of the 256Kbit line between ULCC, in London and CNUSC, in Montpellier.

This line was the only one missing from the planned infrastructure which

interconnects London, Stockholm, Amsterdam, Geneva, and Montpellier with

256/512Kbit lines.

The EBONE is now fully operational and offers today, to the partners who

joined the initiative, a full backup within Europe (tests shows a

converging time of 30 seconds in case of failure of one of the lines of

the ring). Arrangement have also been made to guarantee backup services

to the United States, in case of failure of one of the two

intercontinental lines connected to the EBONE92.

EARN contributes to the EBONE92 both with financial support and with

manpower at the management and at the technical level. Frode Greisen\* is

a member of the EBONE Management Committee and recently started to work

part time as EBONE92 General Manager, and Daniele Bovio is a member of

the EBONE Action Team.

5. Statistics

 ----------

 by Greg Lloyd (glloyd@frors12.bitnet)

End to end traffic

During June and July of 1992, the figures for traffic volume (sent and

received) were 369M and 379M (records). These figures increase over the

same months last year by 53% and 51% respectively. The modest upward

trend in traffic figures continues to be seen with a 2% growth in the

combined June and July figures over the combined May and April figures

for 1992.

Link down times

This section reports on the average link down time found on any network

link with EARN amongst all the International network nodes.

International network nodes within EARN are comprised of all the nodes

that represent their member countries (one per country). A subset of

these nodes go to make up the EARN core nodes.

The average link down times for July, August and September 1992 were

8.2%, 9.4% and 5.2% respectively. These figures show some fluctuation

that is mirrored in the statistics presented in the 'Link Queues'

section below. September 1992 proved to be an extremely good month with

a very low link down time figure.

Note that these figures do not include the statistics for Yugoslavia.

Link queues

This section reports on the average file queues found on any network

link with EARN amongst all the International network nodes.

International network nodes within EARN are comprised of all the nodes

that represent their member countries (one per country). A subset of

these nodes go to make up the EARN core nodes.

The average number of files queued for July, August and September 1992

were 14.8, 18.7 and 9.1 respectively. These figure correlate with the

link down time figures as presented in the section 'Link Down Times'

above. September 1992 saw a dramatic drop in queued files.

File round trip times

This section reports on the time a file takes to cross between two EARN

network nodes and also between nodes on the EARN and BITNET networks.

Files of two different sizes are used to make this measurement. The

first is 50 records in length and is used as a representative mail file.

The second, 1001 records in length and representative of a medium sized

data file. Two different figures for each file size is reported here:

the minimum times (in seconds) all files took to complete their round

trips and the average times (in minutes) that all files took to complete

their round trips.

The following table shows the figures for July, August and September

1992.

 50 Record files 1001 Record Files

 Minimum Average Minimum Average

 July 7.5 secs 7.6 mins 15.5 secs 9.5 mins

 August 7.5 secs 8.3 mins 15.0 secs 8.7 mins

 September 7.5 secs 5.1 mins 16.0 secs 7.7 mins

As can be noted from the above figures, the minimum times remain fairly

constant. These figures represent the best average times these two

differently sized files took to traverse and return over the EARN and

BITNET network backbones. There is some variation between these figures

but they show a basically downward trend.

Interactive message round trip times

This is a new feature to EARN network statistics that is designed to

measure the round trip times of sending interactive messages across the

network. This is important to the EARN clientele in areas such as

sending and receiving interactive message to various servers (for

example, LISTSERV).

For July, August and September 1992, the average time taken for an

interactive message to travel to and return from any two nodes on the

EARN network were 4.5, 4.5 and 5.0 seconds. These figures appear to be

fairly stable.

6. Distribution of EARN tools

 --------------------------

 by Greg Lloyd (glloyd@frors12.bitnet)

Over the past few months, there have been some requests for tools and

software developed at the EARN Office for use within EARN member

countries and cooperating networks. This prompted the question of how

EARN should best deal with these requests, what were its legal and

ethical obligations and how to proceed in the spirit of support and

cooperation.

Following discussion amongst the members of the EARN Executive

Committee, the following policy was decided upon: selected EARN tools

will be available for distribution to EARN member countries and

cooperating networks either at a fee or freely under copyright

protection. In particular, the HIMON monitor will be distributed at

request at no fee.

More detail will be given in a future issue of EARNEST.

7. EARNCC - an NJE node for the EARN Office

 ----------------------------------------

 by Greg Lloyd (glloyd@frors12.bitnet)

Background

The EARN Office's electronic documents are currently located on the

LISTSERV machine at the node FRORS13 under the EARN-MIN filelist. Due to

the impending move of the EARN Office to new accommodation in Paris and

the phasing out of NJE services at the current host site C.I.R.C.E., it

has been necessary to look for alternative arrangements for this

document filelist. It appeared that the most practical solution was to

create a new NJE node that could be always associated with the EARN

Office and immune to any changes occurring at a host organization. In

this manner, the document filelist will only have to be moved once and

subsequently be independent of its actual location within the EARN

network.

The solution

After some discussion, it was decided that this node would be a second

level VM machine with an NJE node name of EARNCC (EARN Coordination

Center). Its configuration was finalized as comprising of a LISTSERV

machine, a VM MAILER and RSCS machine : the absolute minimum in terms of

providing filelist services to EARN clientele. This configuration will

also create the minimum amount of overhead for the hosting site. At this

point, I would like to thank those organizations that kindly offered to

host this node, in particular, University College Dublin. Nevertheless,

thanks to the generosity of the C.I.R.C.E. organization, they agreed to

establish this node while they continue to provide NJE services and

until the node is located to another, more central, site. The EARNCC

node will soon be created and the documents will then be available from

LISTSERV at EARNCC. The movement of the EARN documents from LISTSERV at

FRORS13 to the above node will be advertised over the network. Any

future physical relocation of these documents will subsequently be

transparent to EARN's clientele since the node name will always remain

the same.

8. New Nodes and Deleted Nodes in the Network

 ------------------------------------------

 by Hans-Ulrich Giese (u001212@hearn.bitnet)

The following nodes have joined EARN, Bitnet or the other cooperating

networks in August, September or October 1992. Note that Paraguay joined

Bitnet in October.

The new nodes are listed below by country.

For details on any node, you can send mail to any Listserv\* machine,

eg: listserv@frmop11.bitnet with the line: SHOW NODE nodename

Austria:

 ALIJKU12

Belgium:

 BANUIA61

Brazil:

 BRCETESB

 BRPUCRS

Switzerland:

 CNEIPH51

Czechoslovakia:

 CSPUNI13

Germany:

 DHDIBMIP

 DMUMPIWH

 DMUMPINT

 DMUMPIMV

France:

 EARNCC (see 7. in this newsletter)

 FRILL50

 FRUAGG11

Hungary:

 HUBME51

 HUKLTE51

Italy:

 ICRS4VM

 IRMICMAT

 IRMRETI

Japan:

 JPNSUT32

 JPNTGU00

Mexico:

 ACADEM01

 UDEMAV01

Paraguay:

 UTPVM1

Commonwealth of Independent States:

 SUYARS

Turkey:

 TRATAUNI

United States:

 ALBNERIC RIGEL

 ASU TAHOMA

 ESNET TCUFVMS

 IUAZURE UFCC

 LBDRSCS UFOAK

 MSOESA UHVMESA

 MVSESA UICPH1

 NIHCOCC UICWS

 NIHNLM VDH

 NIHNLM3C WCHESTER

 NIHOD31E WINGRA

 OHSTPW WISCPS

 PSUBEH1

 PSUBEH2

 PSUEDVAX

 PSULEPSJ

 PSULEPS5

The following nodes have been removed in August, September and October

1992 for different reasons, e.g. the machine doesn't exist any more, or

the site is reachable via a different address. The new address or the

name of a person you can contact to obtain further information is given

together with the node name (in alphabetical order, by month).

In August:

AKRON, University of Akron

 Contacts: Gary Sponseller, SPONSELL@AKRONVM, +1 216 972.6200

 Frank Thomas, THOMAS@AKRONVM, +1 216 972.7170

BINGVAXC, State University of New York at Binghamton

 Contacts: Dick McCarthy, SP0003@BINGVMB, +1 607 777.6106

 James Blake, AS0JEB@BINGVMA, +1 607 777.6107

BUASTA, Boston University Astronomy Department VAX A

 Contacts: Mark Hayes, CCMLH@BUACCA, +1 617 353.2780

 Leo C. Driscoll, CCLCD@BUACCA, +1 617 353.2780

CTSTATEU, Connecticut State University

 Contacts: Brian E. Wenger, +1 203 827.7211

 James Malone, +1 203 827.7211

EALSOL51, Plataforma Solar de Almeria

 Contacts: Manuel Silva, MANOLO@EALES51, +34 51 365189

EMDUAHM1, Universidad Alcala de Henares-Centro de Calculo

 Contacts: Emilio Gutierrez, +34 1 3333333

 Julio Mencias, +34 1 3333333

FHCRCVM, Fred Hutchinson Cancer Research Center

 Contacts: Howard G. Schoch, SCHOCH@FHCRCVAX, +1 206 667.4566

 Rick Ramsey, SYS@FHCRCVAX, +1 206 667.4970

HHEOUH54, Open Universiteit Heerlen

 Contact: Ed Grouwels, APPEGW@HHEOUH51, +31 45 762512

HUTSUR51, SURFnet Utrecht

 Contact: Tom Adriaansen, ADRIAANS@HNYKUN52, +31 80 6.17958

KUIKSC00, KUKISR00, KUKUN00, Kuwait University

LUSUN, Lakehead University

 Contacts: Darlene Yahn, DLYAHN@LAKEHEAD, +1 807 343.8265

 Paul Inkila, OCCPAUL@LUVMS, +1 807 343.8681

RMC, Royal Military College of Canada

 Contact: Wolfgang Fritz, postmaster@rmc.ca, +1 613 541.6439

UMIAMVS, University of Miami Information Resources

 Contacts: Barry Miller, BARRY@UMIAMI, +1 305 284.3846

 Scot Sutton, SCOT@UMIAMIVM, +1 305 284.3931

UORHBV, University of Rochester Computing Center

 Contacts: Jack Pernice, PERN@UORDB2, +1 716 275.7160

 Michael Scott, MJTT@UORVM, +1 716 275.9127

In September:

ALMCSVM1, ALMCSVM2, ALMCSVM6, ALMCSVS5, ALMVMB, ALMVMC

 IBM Almaden Research Center Networking Suppor

 Contacts: Walter J. Doherty, DOHERTY@YKTVMV, +1 914 945.2874

 Nicholas R. Trio, NRT@YKTVMH3, +1 914 945.1850

BBRBFU01, Brussels Free University, Brussels, Belgium

 Contact: Eric Luyten, ELUYTEN@BBRBFU60, +32 2 650.3707

BLIULG13, Universite de Liege, Belgium

 Contacts: Fernand Benedet, ULGEARN@BLIULG11, +32 41 564.901

 Jose Pironnet, PIRONNET@BLIULG11, +32 41 564.909

BRUFMGEE, UFMG, LCC, maquina instalada na Escola de Engenharia

 Contacts: Roberto Alves Nogueira, ROBERTO@BRUFMG, +55 031 441.1881

 Renato Baumgratz Viotti, VIOTTI@BRUFMG, +55 031 441.1881

BUMETA, Boston University Metropolitan College

 Contacts: Mark Hayes, CCMLH@BUACCA, +1 617 353.2780

 Leo C. Driscoll, CCLCD@BUACCA, +1 617 353.2780

DMSWWU2B, Universitaets-Rechenzentrum Muenster

 Contacts: Dr. K.-B. Mertz, MERTZ@DMSWWU1A, +49 251 83.2681

 Dr. Wilhelm Held, HELD@DMSWWU1A, +49 251 83.3791

 Remark: This node is functionally replaced by DMSWWU2E

HNYKUN12, K.U. Nijmegen / Computer Center

 Contacts: Frits de Vries, U001275@HNYKUN11, +31 80 61.7998

 Wobke Veenstra, U030102@HNYKUN11, +31 80 61.7949

POLYGRAF, POLYTECH, Polytechnic University Computing Center

 Contacts: David Rubin, +1 718 260.3212

 Antonio Monteiro, +1 718 260.3264

PUCE, UNIVERSIDAD CATOLICA QUITO

 Contact: Xavier Baquero, XBAQUERO@ECUAFUN

TAMAIL, Texas A&M University - Computing Services Center

 Contacts: Butch Kemper, X040BK@TAMVM1, +1 409 845.4215

 Richard J. Babowicz, RJB6487@TAMNET, +1 409 845.8446

UCSG, U CATOLICA GUAYAQUIL

 Contacts: Xavier Salvador, SALVADOR@ECUAFUN

 Xavier Baquero, XBAQUERO@ECUAFUN, +1 593.4 200801

UTCHPC, Univ of Texas System Center for High Performance Computing

 Contacts: Tracy LaQuey Parker, TRACY@THENIC, +1 512 471.2488

 William C. Bard, BARD@THENIC, +1 512 471.2444

WUMS, WUMS2, Washington University Medical School

 Contacts: Bill Harvey, HARVEY@WUVMD, +1 314 935.6460

 Eric Oberle, C09615EO@WUVMD, +1 314 935.5313

In October:

BUCKNELL, BKNLVMS Bucknell University Computer Services

 Contact: Chris Weber WEBER@Bucknell.edu, +1 717 524.1801

Mail to any user ID at either of these nodes can be directed over the

Internet to the same userID@bucknell.edu. Please direct any questions

you have about this upcoming change to postmaster@bucknell.edu.

BNLVMA, BNLVMXA

 Brookhaven National Laboratory Central Scientific Computing Facility

 Internet addresses: bnlvma.bnl.gov and bnlvmxa.bnl.gov

 Contact: Richard Horwitz, +1 516 282.4134

CGEHCU61, Hopital Cantonal Universitaire de Geneve, Switzerland

 Contacts: R. Merat, MERAT@CGEUGE51, +41 22 705.7578

 Mr Morandi, +41 22 22.6266

CORNELLE, CORNELLF Cornell Theory Center

 Internet addresses: cornelle.tc.cornell.edu & cornellf.tc.cornell.edu

 Contacts: Mark Bodenstein, MAB@CORNELLC, +1 607 255.8059

 Steve Worona, SLW@CORNELLA, +1 607 255.8308

DBNPIB5, Physikalisches Institut der Universitaet Bonn

 Internet address: pib1.physik.uni-bonn.de

 Contacts: Kobe, SYSTEM@pib1.physik.uni-bonn.de, +49 228 73.3222

 Franz Bopp, UZR115@DBNRHRZ2, +49 228 73.3442

DHDIBM1B, IBM ECAN, Heidelberg; Connectivity Experimental Node

 Contacts: Berthold Pasch, PASCH@DHDIBM1, +49 6221 404.242

 Jacques Vaessen, VAS@DHDIBM1, +49 6221 404.334

DM0MPB51, MPI Biochemie, Muenchen, Germany

 X.400 address: O=BITNET;OU=mpib-martinsried;P=mpg;A=dbp;C=de

 Contacts: H. Hanewinkel, heha@alf.biochem.mpg.de, +49 89 8578.2735

 Manfred Reitberger, MAR@DM0MPI11, +49 89 32308.277

FRORL01, Centre Interuniv. de Calcul de la Region Centre

 Contact: N Klein, +33 38.41.71.37

GBGBOX, Rutherford Appleton Laboratory, Great Britain

 Contact: Peter Chiu, PCMC@UKACRL, +44 235 44.5398

IPDUNIV, Padova University, Computing Center, Italy

 Contact: Anita Zorzi, SALAZERO@IPDUNIVX, +39 49 8750477

PRATT, Pratt Institute Computer Center - VAX/VMS

 Contact: Bernie Yap, +1 718 636.3613

PSULEPSI, PSULEPSR Pennsylvania State University Lab for Elementary Particle Sc.

 Contacts: Russell Vaught, RSV@PSUVM, +1 814 863.0421

 Robert Fowles, RBF@PSUVM, +1 814 865.4774

QCVAX, City University of New York CUNY Queens College

 Contact: Morris Altman, MORRIS@QCVAXA, +1 718 997.5940

SFBSYS, University of California San Francisco

 Contact: Ed Rovera, EJR9006@UCSFVM, +1 415 476.3119

UGACDC1, UGA205 University of Georgia Athens

 Contacts: Harold Pritchett, HAROLD@UGA, +1 404 542.3135

 Rex Walker, RWALKER@UGA, +1 404 542.5359

UTORDAIS, University of Toronto Development & Alumni Info. Service

 Contact: Norman Housley, NETADMIN@UTORONTO, +1 416 978.4967

VPIVAX6, VTELLIPS, VTHOBBES, VTNFNITY, VTYR

 Virginia Polytechnic Institute and State University - Mathematics Dept.

 Contacts: Kenneth Hinson, HINSONKP@VTMATH, +1 703 231.7224

 Lawrence N. Sewell, USDLNS@VTVM1, +1 703 231.6923

9. Server World

 ------------

 by Turgut Kalfaoglu (turgut@frors12.bitnet)

As you may remember, in the last issue I tried to get your feet wet by

giving you some things to try, like subscribing to lists, and asking for

help. This month, I'll try to answer the question "how does it all

work?" We'll try to answer such questions as "how does a mail that

someone posts finds its way to you, and how does a file you request from

Trickle\* get delivered to you.

How Does it All Work, Part 1: Delivery with DIST

When you post a message to a list, your message goes to the list's

"mailbox." At semi-regular intervals, the server that handles the list

takes a peek at the list's mailbox, and sees that a message has arrived.

It then loads your message and the list of the recipients (the members

of your list), and starts determining the server that is closest to each

of those recipients. The calculation of the path to these recipients is

based on the information available from the large network description

file, BITEARN NODES. The server bases its decision on the available

lines, their speeds, and other such parameters. Once this is done, it

plans a path for each of these recipients, delivers some copies of the

message to nearby recipients, and it forwards this message, along with

instructions, to another server down the line. The second server may

decide to send copies of the message to several servers.

This continues until all recipients are addressed. This saves an

enormous amount of bandwidth on the network, since only a minimum number

of copies are sent, instead of a separate copy for each member.

How Does it All Work, Part 2: File Delivery A La Trickle

You might have already tried sending a /PDGET to a trickle, and received

your file. What exactly happened to get that file to you? The trickle

that processed your request first tried to find the file in its own

cache disk, where it keeps the software it recently got from FTP sites.

Failing to find your file there, it checks an ever-changing file that

contains a list that looks like:

 <directory.subdirectory>filename.ext nodename

 <directory.subdirectory>filename.ext nodename

 (..)

This file keeps a record of where some of the more popular files are

held. "Nodename" is the node address of one of the Trickle servers. The

server "learns" from others, and updates this file continuously. If the

file your requested is among this list, it is directly requested from

another server, with a message that translates roughly as "Hey, send

this file to the user that requested it." This direct-request is very

effective, and it cuts down on a lot of inter-Trickle traffic. The other

server can only reply "OK, Done!", or "I don't have it". In the latter

case, a similar request is sent to all other Trickle servers

simultaneously. Since it is guaranteed that there is only one copy of

the file on all the Trickle caches, there is no risk of duplicate

deliveries - unless a server has been down for too long to compare its

cached files against other servers.

If no Trickle has the file you want in its cache, a request is sent to

an FTP site, which delivers it to Trickle. Trickle sends this file to

you and to anyone else who might have asked for it, and places the file

in its own cache, just in case someone else asks for the same file.

Statistics On Server Usage

Every month, I prepare statistics on Trickle servers to see which

country is the most active, and which server has been used the most

often. The chart is quite extensive, and here are some highlights from

September '92 statistics:

\* During September, 10 Trickle servers delivered a total of 4 gigabytes

 to users in 37 countries. They received 1 gigabyte of data (software,

 new directories, mail files) in the same period.

\* The most active Trickle server was the Austrian server, delivering 27%

 of the software, followed closely by the French server at 20%.

The entire statistics chart can be obtained by sending

GET REDSTAT 199209 command to Listserv@frors12.bitnet

Server News

\* For compatibility with Revised Listserv, LISTEARN now supports IETF

headers. This includes hosting lists with default setting of IETF, and

even peering lists among the two different servers should provide IETF

headers to those wishing to have it. For those not familiar with IETF,

it's an "almost untouched" header. Meaning, if you send a "SET listname

IETF" to a server, you will receive subsequent postings made to the list

with all the header lines from the sender's posting intact. Note that

this option may not work with older servers. In that case, the server

will grunt: "Invalid Option."

\* Trickle now supports subscription to individual files. You simply

subscribe to "patterns" like: "<msdos.gif>abc" and the server will order

the files matching to your patterns, among the files that are updated in

the directories. In practice, you will usually receive the file while

you read an announcement that the file is being made available by its

author! There are practically no limits on the patterns you can have,

and you can even subscribe to "everything" in a subdirectory (by just

specifying an asterisk instead of filename). However, beware that the

server's internal quotas are still active when you subscribe to files.

Send a /HELP to a Trickle for additional information. I'll see you again

in two months.

10. NSC'92 - The Network Services Conference 1992

 ---------------------------------------------

 by Marco Sommani (sommani@icnucevm.bitnet)

NSC'92 is almost here and the organization of the final details is now

in full swing. The final program will be released very soon.

Here is some information on equipment and connectivity at NSC'92:

Hopefully we will have a 2Mbps connection between CNUCE and the Congress

Building.

Delegates will have access to about 20 terminals placed in the main

hall.

Equipment for demos will be placed in a conference room, which will not

be used for our sessions. The room is located close to the bar, in a

place where participants are supposed to gather during intervals. The

wall of the room has a screen. Seats can be arranged in the middle of

the room if we intend to project demos on the screen. We may also have a

work station connected to a Barco projector in the main auditorium, if

we intend to show demos to a wider audience.

All stations and PCs on the LAN will have Internet access. If equipped

with the appropriate software, they will have access to the CLNS pilot

and to IXI. Access to IXI will be via X.25 over 802.2 (ISO 8881). The

IWU will be a DECNIS, that will be used also for IP and CLNS routing.

DEC is also expected to give us terminals, X-terminals, PCs, terminal

servers, LAN concentrators, etc. They are also expected to give us a

machine where we can define userids for those who want to access IXI.

Other sponsorships are expected from Apple, IBM, NeXT and SUN. NeXT and

SUN are committed to providing at least two workstations each. The exact

number and the configurations are still to be defined. Apple is expected

to offer a laser printer, a dozen of Macs in various shapes, the

appletalk cable and the gateway between Appletalk and Ethernet.

IBM will give us a RISC6000. They can also give us 327x terminals, PCs

with the coaxial cable card and a 3174 to group them together. The 3174

will be connected the IBM mainframe in CNUCE. The plan is to make it via

a pair of 6611s (the new IBM router).

If you intend to organize a demonstration for the NSC'92 conference, you

are invited to contact Marco Sommani <sommani@icnucevm> for further

information.

11. The User Survey

 ---------------

 by Avi Cohen (a32@taunivm.bitnet)

In the previous issue of EARNEST, we announced that a user survey on

network services was being conducted by EARN. The survey was distributed

on July 9, 1992 to members of the EARNINFO group for distribution within

the various member countries to the users of multiple networks.

The survey consists of questions on communications usage, electronic mail

usage, awareness and usage of network services, and the quality of the

services provided.

Completed questionnaires were collected centrally at the EARN Office in

Orsay, France, and from there they were sent to Izmir, Turkey for

statistical processing. As of the end of August, the number of completed

questionnaires which were returned to the EARN Office stood at

approximately 1500.

The statistical processing is being carried out under the guidance of

Professor Oguz Manas. The results and conclusions of the survey will be

publicized at the Network Services Conference (NSC'92) which will take

place in Pisa, Italy at the beginning of November 1992 and in the next

issue of EARNEST.

12. Upcoming events

 ---------------

Meetings:

 EARN Board of Directors\*

 . 5-6 November Pisa, Italy

 RARE Council of Administration\*

 . 3/4 February 1993 Luxembourg

 . 13/14 May 1993 Trondheim, Norway

Conferences:

 The Network Services Conference 1992 - NSC'92

 organised by EARN in cooperation with

 EUnet/EurOpen, NORDUnet, RARE and RIPE.

 3-5 November 1992 Pisa, Italy

 4th Joint European Networking Conference - JENC93

 10-13 May 1993 Trondheim, Norway

 IETF

 16-20 November Washington DC

 29 March - 2 April 1993 Columbus, Ohio

 July 1993 (to be confirmed) Amsterdam, NL

 Interop

 26-30 October 1992 San Francisco, United States

 8-12 March 1993 Washington D.C., United States

 23-27 August 1993 San Francisco, United States

 25-29 October 1993 Paris, France

 18-22 March 1994 Washington D.C., United States

 12-16 September 1994 San Francisco, United States

 SHARE

 28 February-5 March 1993 San Francisco, United States

 15-20 August 1993 Washington D.C., United States

 20-25 February 1994 Anaheim, United States

 7-12 August 1994 Boston, United States

 Interim SHARE

 8-11 November 1992 Tampa, United States

 23-26 May 1993 San Antonio, United States

 INET'93

 18-21 August 1993 San Francisco, United States

13. EARNEST Glossary

 ----------------

Here is a brief explanation of the items in this newsletter which are

marked with an asterisk (\*):

anonymous FTP - special username (anonymous) that can be used by any

 user to access and retrieve files on a FTP site; the

 e-mail address is usually used as a password.

BITEARN NODES - table of all the nodes and links in the international

 NJE network (EARN, Bitnet\* and cooperating networks);

 every computer which routes mail in the network must

 have a copy; updated at least once a month.

BITNET - "Because It's Time" NETwork; originally, the academic network

 in the US based on NJE; this term is popularly used to refer

 to the whole international academic NJE network.

Daniele Bovio - works in the EARN Office, France.

Avi Cohen - EARN Vice-President.

CONCISE - COSINE Network's Central Information Service for Europe

Hans Deckers - EARN manager, works in the EARN Office, France

EARN Association - European Academic and Research Network.

EARN Board of Directors - BoD; EARN's legislative body; a representative

 from each EARN member country.

EARN core sites - Main sites in the regions defined in the EARN

 regionalization plan (for details send the command

 GET BOD7 91 to listserv@earncc.bitnet)

EARN Executive Committee - EXEC; EARN's executive body; 7 members

 elected from the EARN BoD;

EBONE - European Backbone Network; operates a European core backbone

 between 2 central sites (Amsterdam, Geneva, London, Montpellier

 and Stockholm).

Hans-Ulrich Giese - EARN Master Coordinator, works in the University

 of Nijmegen, The Netherlands.

Nadine Grange - works in the EARN Office, France.

Frode Greisen - EARN President.

Turgut Kalfaoglu - works in the EARN Office, France.

Listserv - list servers, either "Revised Listserv" by Eric Thomas or

 its derived version by EARN Association.

listserv@earncc.bitnet - Listserv address which hosts the filelist of

 official EARN documents and minutes.

Greg Lloyd - works in the EARN Office, France.

Netmonth - an independent guide to Bitnet, distributed electronically

Netserv - NETwork SERVer; file server mostly dedicated to the

 Network Management

NJE - Network Job Entry; a service developed by IBM for reception and

 transmission in a computer network; the basic service provided by

 EARN, Bitnet and their cooperating networks.

RARE - Reseaux Associes pour la Recherche Europeenne; association of

 European networking organizations.

RARE Council of Administration - CoA; RARE's legislative body.

Marco Sommani - EARN General Secretary; member of the organization

 committee for the NSC'92 Conference in Pisa, Italy.

Trickle - server that mirrors software archives accessible via FTP and

 caches recently requested files for faster delivery.