EARN EXECUTIVE

Proposal for an EARN project on mail gateway services for EARN-BITNET
community

                MAIL GATEWAY SERVICE (DOMAIN-STYLE-ADDRESSES BASED)
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                        DEVELOPMENT AND MAINTENANCE
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1 Function

The proposed service allows EARN-BITNET users to exchange mail with
non-EARN/BITNET-connected hosts using the Domain Style Addressing.

2 History

In Italy the RFC822 mail style addressing was adopted at national
level. The service was supported through CNUCE installations.

From the point of view of the EARN network, the main mail gateway for
domain '.IT' is MAILER@ITEARN. A REROUTE on ICNUCEVM redirects all
traffic for MAILER@ITEARN to MAILER@ICNUCEVX, that is to the PMDF
running on the VAX 8200 of CNUCE. The EARN connection
ICNUCEVM/ICNUCEVX is by DECnet/SNA-Gateway with channel attachment
(throughput 10Mbit/sec) The VAX has connections on three networks:
EARN (hostname = ICNUCEVX), HEPNET (hostname = CNUCE) and INTERNET
(hostname = ICNUCEVX.CNUCE.CNR.IT). Communications with the Italian
portion of EUNET are achieved through a SUN 3/140, which is both on
EUNET (hostname = CNUCE) and on INTERNET (hostname =
SUN.CNUCE.CNR.IT). The gateway knows all domains registered in DOMAIN
NAMES, plus a number of other Italian domains.

3 Problem Description

A domain naming convention has been accepted within the TCP/IP-based
network. Within EARN/BITNET, domain style names are used to provide
gateway and routing information. In the current situation the tables,

mapping domain-style name to network nodes/gateways, forces mail routed through SMTP@INTERBIT to be sent to SMTP@CUNYVM or to some equivalent gateway, such as SMTP@ICNUCEVM. Mail sent to Internet from EARN/BITNET nodes without domain-style-addresses will be forwarded to Internet with a source route in RFC733 form (i.e. using the "percent rule"). To make available a domain-style-addressing over all EARN/BITNET community we need to develop and manage a gateway able to perform the translation between addresses in RSCS style and addresses in domain style.

4 Proposed EARN Project

For foreign users on EARN/BITNET, MAILER@ICNUCEVX is the main gateway into domain '.IT'. The ICNUCEVX mail-gateway can be used also for the following services, without any additional efforts from CNUCE.

- Relaying to INTERNET mail coming from EARN nodes of nations whose country code has been registered in DOMAIN NAMES.

- Relaying to a country whose country code is registered in DOMAIN NAMES all mail coming from INTERNET. This requires the addition into some INTERNET name server of MX records pointing to ICNUCEVX.CNUCE.CNR.IT.

The following services could also be possible, but require further manpower at CNUCE:

- Maintaining primary or secondary name servers for European domains.

- Performing the translation between addresses in RSCS style and addresses in domain style for those European nodes whose mail transfer servers are not able to do the translation themselves.

- Routing mail directed to European nodes that are on INTERNET directly through INTERNET rather than through the gateway specified in DOMAIN NAMES.

The whole set of services can be estimated as a full time job. For a subset of them, a part time job could be sufficient. The man-power estimated for the whole set is

o 1 year/man

In addition, if the services are extended to the whole EARN/BITNET community, the Italian international connection to EARN and the gateway hardware should be upgraded.

A detailed project plan will be available. Request should be addressed to Marco Sommani <SOMMANI@ICNUCEVM.CNUCE.CNR.IT>.