EUROPEAN IP NETWORK NUMBER

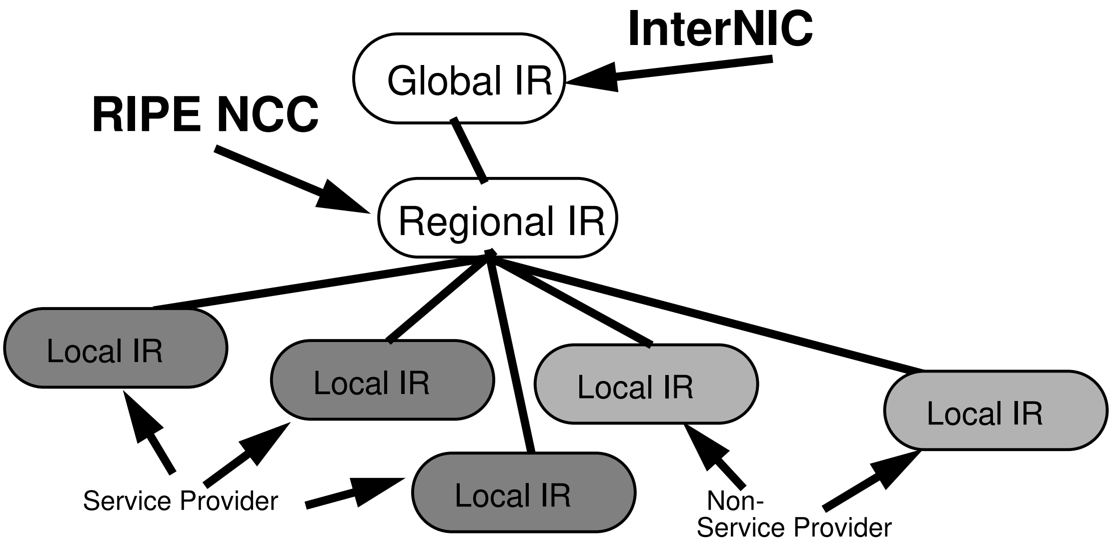
APPLICATION FORM & SUPPORTING NOTES

To whom it may concern.

Thank you for your request for an IP network number. Please ensure that you read the information below carefully before submitting your application for an IP number. The form appended to this letter will be accepted by local Internet Registries across Europe.

The previously centralised procedures for obtaining IP network numbers from the Global Internet Registry (now the InterNIC and formerly known as hostmaster@nic.ddn.mil) have been replaced by a distributed system whereby applications for IP network numbers across Europe are processed by local Internet Registries (local IR‘s). The Global Internet Registry now delegates blocks of IP network numbers to the RIPE NCC as the registry for the European region, which in turn delegates blocks of IP network numbers to local IR's. The diagram below shows the distributed hierarchy of Internet Registries. Note that local IR's are of two types; "service provider" and "non-service provider". An IP service provider is an organisation that supplies Internet connectivity to it's customers or users (examples are academic network providers and commercial network providers). "Non-service provider" local IR's are organisations that are prepared to handle all requests from organisations that have no connection to the Internet at present or planned

.



If you are NOT a customer of a service provider, then you should send your completed application form to the "non-service provider" local IR. Currently only one of this type of registry exists per country in Europe. If you do not know whether a non service-provider local IR exists for your country then you should contact the RIPE NCC (address is given below). If however, you are already a customer of an IP service provider, then you should contact them for your IP network number(s).

Regardless of whether you are applying for class B or C addresses you should always make your application in the first instance to a local IR. However, class B addresses are only assigned by a Regional Internet Registry (in Europe this is the RIPE NCC located in the Netherlands), so if your application is felt justified, it will be forwarded by your local IR for the RIPE NCC to review.

If you have any queries, please do not hesitate to contact the RIPE NCC who will be able to advise you. Our contact details are given below:

RIPE Network Coordination Centre
Kruislaan 409
1098 SJ Amsterdam
The Netherlands

email: hostmaster@ripe.net
tel: +31 20 592 5065
fax: +31 20 592 5090

Yours sincerely.

Hostmaster, RIPE NCC

Supporting Notes for the IP Request Form

Before making your request for an IP number, there are 3 documents which you should receive and read:

- o the Supporting Notes - this document
- o the European IP number request form - appended to this document
- o the Additional Hints document - appended to this document

This document will guide you in how to complete the European IP number request form correctly. This form is used by all the Internet Registries across Europe. The format of the form is designed so that it enables your application to be processed more quickly. That is why we ask you to carefully read and follow the "Supporting Notes" document. Please be careful to follow the information contained within the examples below. A completed template is also included for reference. If you are unsure about any of the fields, please leave them blank. Please send the completed template to your local IR or contact the RIPE NCC if you are unsure about what to do next.

Part A - Administrative Details

The information supplied for this section together with the assigned network numbers will be entered into a database of European network numbers and their contact information which is accessible by the whole Internet community.

NETWORK TEMPLATE

netname:

Please complete with an appropriate network name for the network to be numbered which is short and meaningful. The 'netname' is used mainly for administrative purposes like consistency checking of the Internet Registry. You will most likely not see this name appear anywhere, but on forms like this. The network name should be written in capital letters e.g:
netname: TBIT

descr:

Please complete with a short description of the organisation, including the location. The full postal address is not needed as this is required in the person template e.g:
descr: Terabit Labs Inc.
descr: Network Bugs Feeding Facility
descr: Northtown

country:

Please give the two letter country code (ISO 3166) which is appropriate for the organisation. We know this gives problems for networks crossing national boundaries, so choose the most appropriate country, based on the location of the admin contact. If you do not know the appropriate code for your country, please complete with the full name of the country e.g:
country: NL or country: Republic of Northern Nowhere

admin-c:

Please complete with the name or NIC handle of the person who is the administrative contact for the network. The NIC handle (if known) is preferred. Please do not use formal titles like 'Dr' or 'Prof.' or 'Sir'. Please specify as in the example below (or with the NIC handle). Do not add full stops between the names or initials e.g:
admin-c: John E Doe or with a NIC handle e.g. admin-c: JD0401

tech-c:

Please give the name of technical contact person (or NIC handle as mentioned above). There can be more than one name specified for the technical contact. NOTE: please give names for both the administrative AND the technical contact. If two different names are not appropriate, then the same name for both contacts is fine. Example as above.

changed:

Email address of the person who is completing the template, followed by the current date. If you do not have email connectivity please leave blank and we will complete it. Please add the date in the format shown below e.g:
changed: johndoe@terabit.nn 930225

source:

Source of the information. It will always be RIPE. This is information which is always required in the database, so it has been added already.

PERSON TEMPLATE

For each different person specified in the network template, please complete a separate person template, unless the data about those persons is already in the RIPE database.

person:

Please give the full name of the persons specified in the admin-c contact and the tech-c contact fields. The names must be written identically to those given in the "admin-c:" and "tech-c:" attributes (but must not be the NIC handle or official titles like 'Dr, Prof. or Sir e.g:'
person: John E Doe

address:

Please complete with the full postal address, and write as you would for ordinary postal mail using one line for each part of the address as shown below e.g:
address: Terabit Labs Inc.
address: Industrial Estate North
address: North Perpendicular Road 12
address: NL-1234 Northtown
address: The Netherlands

phone:

Please give the work telephone number of the person specified above. Please specify the telephone number with + <country code> <area code> <telephone number>. Most countries should drop the leading zero when specifying their area code. More than one telephone number is fine. Each telephone number should be put on a separate line and written in order of the most appropriate number for the contact person e.g:
phone: +31 20 1233 4676
phone: +31 20 1233 4677 ext. 4711

fax-no:

Please complete with the telefax number of the person specified above. Follow the same rules as specified for telephone number above e.g:
fax-no: +31 20 12334678

e-mail:

Please supply the appropriate electronic mail address for the admin-c (the administrative contact person)/ and the tech-c (the technical contact person). Please ensure that this is a valid domain address. If you DO NOT have e-mail connectivity, please leave this blank as the email attribute will not be included in the administrative details stored in the database for this person, e.g:
e-mail: johndoe@terabit.nl

nic-hdl:

This refers to a NIC handle which is a unique identifier assigned and used by the US NIC to unambiguously refer to Internet people. If you do not have a NIC handle, then please leave blank e.g:
nic-hdl: JD0401

changed:

By whom and when this was last changed. Please complete with your e-mail address followed by the current date in the format which is shown below. If you do not have e-mail connectivity, please leave blank and we will complete this on your behalf e.g:
changed: johndoe@terabit.nl 930225

source:

Source of the information. It will always be RIPE. This is information which is always required in the database, so it has been added already.

Part B - Technical Details

Information supplied below helps us to evaluate and process your request. It will be kept in CONFIDENCE and is for internal use only. It will NOT be entered into the RIPE Network Management Database.

TECHNICAL TEMPLATE

request-type:

Please specify the quantity and class of your request for network numbers.
In making the application, please be guided by the following EXAMPLES of number of hosts which relate to the quantity of network numbers requested e.g:

1 class C number (maximum 254 hosts)
2 class C numbers (maximum 508 hosts)
4 class C numbers (maximum 1016 hosts)
8 class C numbers (maximum 2032 hosts)
16 class C numbers (maximum 4064 hosts)
32 class C numbers (maximum 8128 hosts) * *a second opinion may be sought from the RIPE NCC*
single class B number
other (please specify)

machine-0:

Please state the number of machines in your organisation that currently require a unique IP address. Do not forget to include terminal servers and network numbers needed for transit networks when calculating this figure e.g:
machine-0: 100

machine-1:

machine-2:

As in above example for machine-0 but provide estimates for 1 and 2 years time.

subnet-0:

Please state the number of subnets required for the current network. A subnet refers to the physical parts of the network which need a unique (sub)net number e.g:
subnet-0: 10

subnet-1:

subnet-2:

As in above example for subnet-0 but estimate for the number of subnets in 1 and 2 years time.

inet-connect:

Please state whether you plan to connect to the Internet with IP (and not UUCP or any other store and forward gateway mechanism). Please answer with whichever of the following options most closely describes the position of your organisation e.g:
-will never connect
-already connected <through whom>
-plan to connect <date> <through whom>
If you are “already connected” to the Internet, please state which service provider you are connected to. If you answer with “plan to connect” then please make an estimation on the date that you hope to connect, specifying (if possible) the month, the year and through whom e.g:
inet-connect: plan to connect 930401 Net-Provider Inc

exist-IP-net:

Has your organisation already obtained an IP network number or numbers? If so, please give the network number(s) and the network name if known. If not, then please complete with <no>.Format: complete with the network number only - four numbers separated by dots, as shown below. If known, please also add the network name entry as shown below. This must be specified the same way as it appears in the database e.g:
exist-IP-net: 193.87.45.0 TBIT or exist-IP-net: <no>

country-net:

Please give the ISO 3166 country code which describes where the network will be located. If more than one country applies, then give the iso codes of the countries which will be covered by the network. Format: complete with country name(s) using ISO 3166 country code. If you are unsure, write the name of the country out in full e.g:
country-net: NL SE or country-net: Republic of Northern Nowhere

EXAMPLE COMPLETED NETWORK, PERSON and TECHNICAL TEMPLATE

```
netname:       TBIT-2
descr:         Terabit Labs Inc.
descr:         Network Bugs Feeding Facility
descr:         Northtown
country:       NL
admin-c:       John E Doe
tech-c:        John E Doe
changed:       johndoe@terabit.nl 930225
source:        RIPE

person:        John E Doe
address:       Terabit Labs Inc.
address:       Industrial Estate North
address:       North Perpendicular Road 12
address:       NL-1234 Northtown
address:       The Netherlands
phone:         +31 20 987 6542 ext. 4711
fax-no:        +31 20 123 3467
e-mail:        johndoe@terabit.nl
 nic-hdl:      JD0401
changed:       johndoe@terabit.nl 930225
source:        RIPE

request-type:  1 class C
machine-0:     100
machine-1:     134
machine-2:     250
subnet-0:      1
subnet-1:      1
subnet-2:      1
inet-connect   plan to connect: 930401 Net-Provider Inc
exist-IP-net:  193.87.45.0 TBIT-1
country-net:   NL
```

Part C - Network Details

Please complete this section on a separate page if you are applying for more than 2 Class C network numbers. The more numbers you are requesting, the more detailed your technical description will need to be. Furthermore, please note that local registries are recommended to seek a second opinion from the RIPE NCC on applications for 32 class C numbers or more. Thus if your application is for this number (or more), it is preferable that you write this section in English. In addition, the more detail you provide in this section, the quicker your application will be processed. Please include an overview of the size of your subnets, ensuring that you do not forget transit networks, terminal servers etc. when calculating your needs.

Before you complete this section you should read the ‘Additional Hints' document which will guide you. It is particularly important to read this document, especially if you are applying for a class B network number, if you are requesting additional class C addresses or consider that you might need to in the future, as this document provides more detail and a number of helpful hints (see page 6).

If you are applying for a Class B network number please send your completed application to your local registry who will review your case. If it is felt that a Class B network number is justified, your application will be forwarded to the RIPE NCC which will review your application. Please be reminded that Class B network numbers are extremely scarce and are rarely allocated.

Part D - Contact Details

This section should be completed *ONLY IF* you are making an application on behalf of another organisation. Please indicate by whom the application is being made and on behalf of whom, giving all the contact details requested.

Recommended Reading List for Address Allocation and CIDR

- o rfc 1338.txt - Supernetting: an Address Assignment and Aggregation Strategy (V Fuller)
- o rfc 1466.txt - Guidelines for Management of IP Address Space (E Gerich)
- o rfc 1367.txt - Schedule for IP Address Space Management Guidelines (C Topolcic)

These documents are all available from the RIPE document store in the *rfc/* directory. The RIPE document store can be accessed in a number of ways:

- o on the Internet via anonymous FTP from host ftp.ripe.net
- o on the Internet via: telnet info.ripe.net
- o via the X.25 Public Data Network type: pad 0204129004331
- o using the EuropaNET X.25 network type: pad 020430459300031

Organisations without connectivity wishing to obtain copies of the "Recommended Reading" articles should contact the RIPE NCC. A postal delivery of one or more documents is possible.

"Additional Hints" for organisations requesting additional address space

When additional network numbers are needed by an organisation the application should include information on the utilization of address space already held by the same organisation. This information needs to include the number of actually used/unused IP network numbers, the number of actually installed subnets, hosts connected to these and more structural information which may be appropriate to substantiate the new request. This data for previously assigned network numbers provides essential input for global monitoring of utilization of IP address space and feedback to registry operation. To summarise the object of requesting this information is to:

- o ensure proper use is made of the available address space
- o have single contiguous blocks of addresses assigned if possible (so routing information can be aggregated)

For this a good estimate of real network requirements is needed and planning not just for the immediate needs or a specific parts of a network is encouraged.

"Additional Hints" for Organisations Requesting Class B Network Numbers

Please understand that the criteria for allocating Class B network addresses are extremely strict. This is due to the global scarcity of these network numbers. Out of necessity then, the local registry and the NCC has to closely examine each and every request received for a class B network address. As a result the allocation process will take longer. Organisations can however speed up the process by providing as much information as possible on their initial request to enable a decision to be made without having to request more information.

The number of hosts estimate should be substantiated with other data about the network and/or organisation like number of employees, geographical distribution, type of hosts. The clearer you can document that your estimates are carefully derived, the easier it is for us to justify allocation of a class B address.

Besides a sufficient number of hosts we must determine that your network cannot be engineered using a number of contiguous class C networks. If your network consists of a large number of physical networks with relatively small numbers of hosts on each, you will have to consider subnetting class C networks. A large number of subnetworks alone is not sufficient justification for allocation of a class B network number. We realise that a number of engineering decisions can be based on administrative convenience. Unfortunately the remaining class B address space is too small to take these considerations into account. The clearer your explanation is, as to why your network *cannot* be engineered using a block of class C network numbers, the easier it is for us to justify allocation of a class B network address.

All the above mentioned points apply even more strongly to cases where multiple class B network numbers are requested. Assignments of multiple class B network numbers will only occur when your local registry and the RIPE NCC are convinced with a detailed justification in terms of the criteria mentioned.

Finally, please understand that we are not working against you, but with the whole Internet community to achieve a fair distribution of the remaining address space. If you have any questions about the procedure or the information needed, please do not hesitate to contact your local registry or the RIPE NCC for further guidance.

COMPLETE FORM BELOW AND DETACH HERE -

EUROPEAN INTERNET NUMBER REQUEST FORM

Email is preferred if you have it, if not then it is preferred if you send in your template by fax. This will help us to process your request more quickly.

Once completed, please return this document to your local IR or to the RIPE NCC if this is more appropriate or if you are unsure (the address for the RIPE NCC is given on page 1).

IMPORTANT NOTE:

This document is valid until December 30th, 1993. An updated document will be sent out when due.

Part A - Administrative Details

The information supplied for this section together with the assigned network numbers will be entered into a database of European network numbers and their contact information which is accessible by the whole Internet community.

NETWORK TEMPLATE

netname: ______________________________

descr: ______________________________

descr: ______________________________

country: ______________________________

admin-c: ______________________________

tech-c: ______________________________

changed: ______________________________

source: **RIPE**

PERSON TEMPLATE

person: ______________________________

address: ______________________________

address: ______________________________

address: ______________________________

address: ______________________________

phone: ______________________________

fax-no: ______________________________

e-mail: ______________________________

nic-hdl: ______________________________

changed: ______________________________

source: **RIPE**

PERSON TEMPLATE

person: ____________________

address: ____________________

address: ____________________

address: ____________________

address: ____________________

phone: ____________________

fax-no: ____________________

e-mail: ____________________

nic-hdl: ____________________

changed: ____________________

source: **RIPE**

Please note that you will have to include a separate person template for each person referenced as a contact unless the information about the person in the RIPE database is still valid.

The information given above will be entered into a database of European network contacts which is accessible by the whole Internet community. Please refer to the RIPE NCC leaflet on the “Network Management Database” for details on how to query the database.

Part B - Technical Details

Information supplied below helps us to evaluate and process your request. It will be kept in strict CONFIDENCE and is for internal use only. It will NOT be entered into the RIPE Network Management Database.

TECHNICAL TEMPLATE

request-type: ____________________

machine-0: ____________________

machine-1: ____________________

machine-2: ____________________

subnet-0: ____________________

subnet-1: ____________________

subnet-2: ____________________

inet-connect: ____________________

exist-IP-net: ____________________

country-net: ____________________

Part C - Network Details

If you are applying for more than 2 Class C network numbers, then on this page, please submit a description of your network plans. Please continue on a separate page if necessary.

Current network layout

Future network plans: (next 2 years)

(please ensure you have read the “Additional Hints” section on organisations requesting additional class C numbers or class B numbers)

Part D - Contact Details

Complete the section below *ONLY IF* you are making an application on behalf of another organisation.

This application is made by:

name: ____________________

organisation: ____________________

country: ____________________

phone: ____________________

fax-no: ____________________

e-mail: ____________________

On behalf of the following organisation:

name: ____________________

organisation: ____________________

country: ____________________

phone: ____________________

fax-no: ____________________

e-mail: ____________________