

# Supporting Notes for the European IP Address Space Request Form

Paula Caslav Mirjam Kuehne Carla Orange

Document ID: ripe-142 Date: September 6, 1996

Obsoletes: ripe-128, ripe-137, ripe-138

See also: ripe-140, <u>ripe-141</u>

# **Table of Contents**

#### Introduction

- 1. Instructions for Network Administrators
- 2. Instructions for Local Internet Registries
- 3. Instructions for the European IP Address Space Request Form
- I. General Information
- Overview of Organisation
- **Contact Information**
- Current Address Space Usage
- II. The Request
- Request Overview
- Addressing Plan
- III. Database Information
- Network Template
- Person Template
- IV. Optional Information
- 4. Example of a Completed European IP Address Space Request

#### <u>Form</u>

- I. General Information
- II. The Request
- III. Database Information

# Introduction

To make appropriate assignment decisions, information must be gathered about the organisation, addressing requirements, network infrastructure, current address space usage and the future plans of the end-user requesting address space. The *European IP Address Space Request Form (ripe-141)* is a tool for gathering the information necessary to evaluate the request and to ensure that the same guidelines are applied to each assignment.

This document contains instructions for completing the form consisting of the templates contained in it. An example of a completed form is given in Section 4. A separate form must be filled out on behalf of each separate enterprise. (Do not include requests for several customers in one form).

The policies and procedures to be followed in making IP address space assignment decisions are described in ripe-140" *European Internet Registry Policies and Procedures.*". Please refer to this document if you have any questions on policy.

As stated in ripe-140, address space assignments are valid as long as the original criteria on which the assignment was based remain true. If an assignment is made for a specific purpose and the purpose no longer exists, the assignment is no longer valid.

# 1. Instructions for Network Administrators

After completing this form, send it to the Internet Service Provider that gave it to you. Any questions should be referred to them. For detailed instructions, skip to Section 3.

# 2. Instructions for Local Internet Registries

When sending the completed *European IP Address Space Request Form* to the RIPE NCC, all information requested in the first three sections of the form must be supplied. In some cases, the RIPE NCC will request additional information. The more information you provide, the easier the hostmasters can understand the end-user's network set up, and the faster a decision can be made. Therefore, if you have extra information not included in the first three parts of the form, please attach it.

The form should be sent to the RIPE NCC by the Local IR Provider processing the request, not by the network administrators, nor by another ISP. It should be submitted via e-mail to <a href="https://www.nct.ncb.net">hostmaster@ripe.net</a> as an ASCII text document. The form must include the Registry Identifier (X-NCC-RegID) in the e-mail header or at the top of the form.

You can use this form to gather information from the end-users and to document your IP space assignments. When using this form for your own administrative purposes, you may modify it to fit your needs. However, a Local IR is responsible to gather and maintain the information indicated in the forms for every address space assignment.

# 3. Instructions for the European IP Address Space Request Form

# I. General Information

We first gather information on the organisation in which the address space will be used.

# **Overview of Organisation**

To assess a user's request, we must understand the structure of the organisation wanting the addresses and in which part of that organisation they would be used. In this section, a description of the organisational structure should be given. Include information on how the addresses will be distributed among the various departments. If the organisation has offices in more than one country, please specify which country will use the address space. Please include details of the parent company, subsidiaries and contact persons.

#### #[OVERVIEW OF ORGANISATION TEMPLATE]#

Santa's Workshop Inc. is divided into a Development Division which includes departments for candy cane construction, toy manufacturing and reindeer training; and a Surveillance Division that oversees investigations of naughty and nice children. The Development Division is located in Christmastown, and each department in the division has its own subnet. The Surveillance Division is an international operation with numerous branch offices operating around the globe.

# **Contact Information**

The requester template should contain the contact person making the request. The user template is for the organisation that will be using the address space. Each template should include the fields listed below.

Contact Information Fields
----name: The full name of the contact person;
Please don't use titles like "Dr." and do

not add a dot (".") between names or ini-

tials.

organisation: The full name of the organisation.

country: The ISO 3166 two-letter country code for

the country where the contact person is located; If you don't know the country code, you can fill in the full name of

the country (in English).

phone: The work telephone number of the person

listed above; Specify the number with +
<country code> <area code> <telephone</pre>

number>.

fax-no: The fax number of the person above. This

field is optional.

e-mail: e-mail address of the contact person.

#### #[REQUESTER TEMPLATE]#

name: Johnny B Good

organisation: Antarctic Internet Company

**country:** NN (or Northern Nowhere)

phone: +12 21 111 2222 fax-no: +12 21 222 1111 e-mail: jbgood@antarctic.nn

#[USER TEMPLATE]#

name:Santa A Claus

organisation: Santa's Workshop Inc.

country:NN

phone:+12 12 122 2121 fax-no:+12 12 221 1212 e-mail:santa@antarctic.nn

# **Current Address Space Usage**

In this section, please show how the organisation is using all address space that has been assigned to it in the past, and what its future plans are for that space. Do not include information here for the address space they are requesting nor about <u>private address space</u> they may be using.

Include an entry for each physically separate subnet in the network. Subnets are considered to be physically separate if there is an IP router between them.

Current Address Space Usage Fields

| Prefix: | The   | position |       | in the |      | assigned address |    |      |  |
|---------|-------|----------|-------|--------|------|------------------|----|------|--|
|         | space | e at     | which | the    | e ad | dresses          | in | this |  |

subnet start.

Subnet mask: The subnet mask of each entry.

Size: The size of the subnet, which determines the maximum number of network interfaces that can be incorporated in the subnet.

Addresses Used: In these three fields, show the current and estimated usage for the next two years. Include interfaces used for hosts, routers, gateways, terminal concentrators, printers and any other machines requiring one or more network in-

terfaces.

Current: The number of network interfaces cur-

rently used in the subnet.

1-yr: The number of network interfaces to be

used in one year.

2-yr: The number of network interfaces to be

used in two years.

Description: Used to specify a short but semantically

meaningful description of the role of the subnet in the user's organisation.

#### #[CURRENT ADDRESS SPACE USAGE TEMPLATE]#

|                               | Addresses Used  |           |         |      |      |                           |  |
|-------------------------------|-----------------|-----------|---------|------|------|---------------------------|--|
| Prefix                        | Subnet Mask     | Size      | Current | 1-yr | 2-yr | Description               |  |
| 193.1.193.0                   | 255.255.255.192 | 64        | 28      | 34   | 60   | Candy Cane Dept.          |  |
| 193.1.193.64                  | 255.255.255.224 | 32        | 10      | 21   | 28   | Toy Design                |  |
| 193.1.193.96<br>193.1.193.128 | 255.255.255.224 | 32<br>128 | 8       | 13   | 27   | Toy Manufacture<br>Unused |  |
| 193.1.194.0                   | 255.255.254     | 512       | 317     | 429  | 480  | Reindeer Training         |  |
| 193.1.196.0                   | 255.255.255     | 256       | 132     | 200  | 230  | Naughty or Nice           |  |
|                               |                 | 1024      | 495     | 697  | 825  | Totals                    |  |

# II. The Request

# Request Overview

Information supplied in the request overview templates helps to evaluate and process your request. It will be kept in confidence and is for internal use only. The information will **not** be entered into the RIPE Network Management Database.

#### Request Overview Fields

country-net:

-----

request-size: The number of addresses being re-

quested.

addresses-immediate: The number of addresses that will

be used immediately following the assignment; In these fields only include the new addresses that the organisation is requesting, not ad-

dresses they already have.

addresses-year-1: The number to be used within 12

months.

addresses-year-2: The number to be used within 24

months.

subnets-immediate: The number of subnets to be used

immediately.

subnets-year-1: The number to be used within 12

months.

subnets-year-2: The number to be used within 24

months.

\*\*inet-connect: Whether or not the organisation

concerned plans to connect to the Internet. Please use the option that most closely describes the position of the organisation: Will never connect; Already connected through provider name>; Plan to

code of the country where the network is located. For international enterprises, specify the country in which the network that will use the

addresses is located.

private-considered: Has the requester considered using

for the organisation instead of, or in addition to, a public IP address; "Yes" or "no" is sufficient.

More information is welcome.

request-refused: If the organisation has had a request refused in the past, please

give the name of the provider that refused the request and an explana-

tion for the refusal.

PI-requested: "Yes" if address space requested is

provider independent; "No" other-

wise. (see ripe-140.)

address-space-returned: If the user is returning any address space, specify the range of addresses that will be returned, to

whom and before what date. Use the
following format: <x.x.x.x x.x.x> to <name> before <yymmdd>

\*\*NOTE: Prior to assigning address space, it is essential to know if the end-user requesting address space is already connected to the Internet. If so, then the selection of appropriate address space for this user may depend on which provider currently supplies connectivity. If the user is not connected, but is planning to be, this should also be taken into account. This information is essential if the <a href="conservation">conservation</a> and <a href="aggregation">aggregation</a> goals of the public address space distribution are to be met. If the organisation is not planning to connect to the internet in the near future, please consider the recommendations in "Address Allocation for Private Internets" (<a href="RFC 1918">RFC 1918</a>).

#### #[REQUEST OVERVIEW TEMPLATE]#

request-size: 256

addresses-immediate: 120 addresses-year-1: 171 addresses-year-2: 202 subnets-immediate: 6 subnets-year-1: 7 subnets-year-2: 7

inet-connect: Already connected through Antarctic Internet

Company

country-net: NN

private-considered: yes

request-refused: yes, by North Pole Inet because we believe

reindeer can fly.

Pl-requested: no

address-space-returned: 192.0.2.0 - 192.0.2.255 to Antarctic Inet

on 960623

# **Addressing Plan**

In this section, specify how the organisation plans to use the requested addresses. Only include information about the public address space being requested. Use of private address need not be described. Like the "current address space usage" template, the addressing plan is a table in which every subnet is specified.

Include an entry for each physically separate subnet in the network. To conserve address space, the start positions of the subnets should be selected to minimise padding in the address space. In the example below, we arrange the rows in decreasing order of the **Size** fields to achieve an optimal packing of the address space. The size of every valid request for address space will be the sum of all sizes of the subnets specified in the addressing plan.

#### Addressing Plan Fields

Relative Prefix: The relative position in the assigned address space at which the addresses for this subnet will start. The relative position of the first subnet is always 0.0.0.0. For each subsequent subnet, the start position is selected to allow for

the total number of hosts in the Size fields of the subnets which precede it.

Subnet mask: The subnet mask of each entry.

Size: The size of the subnet, which determines the maximum number of network interfaces that can be used in the subnet. This

must be a power of two.

Addresses Used: In these three fields, show the planned usage of the requested address space for the next two years. Include interfaces

the next two years. Include interfaces that will be used for hosts, routers, gateways, terminal concentrators, printers and any other machines requiring one

or more network interfaces.

Immediate: The number of network interfaces to be

used immediately following the assign-

ment.

1-yr: The number of interfaces to be used in

12 months.

2-yr: The number of interfaces to be used in

24 months.

Description: Specify a short but semantically mean-

ingful description of the role of the

subnet in the user's organisation.

#### #[ADDRESSING PLAN TEMPLATE]#

| Relative  | Addresses Used  |      |           |     |     |                       |  |  |  |
|-----------|-----------------|------|-----------|-----|-----|-----------------------|--|--|--|
| Prefix#   | Subnet Mask     | Size | Immediate | 1yr | 2yr | Description           |  |  |  |
| 0.0.0.0   | 255.255.255.128 | 128  | 80        | 95  | 100 | Toy Design            |  |  |  |
| 0.0.0.128 | 255.255.255.224 | 32   | 12        | 17  | 25  | Toy Manufacture       |  |  |  |
| 0.0.0.160 | 255.255.255.224 | 32   | 0         | 15  | 28  | Elf Personnel         |  |  |  |
| 0.0.0.192 | 255.255.255.240 | 16   | 7         | 8   | 10  | Naughty or Nice North |  |  |  |
| 0.0.0.208 | 255.255.255.240 | 16   | 10        | 14  | 14  | Naughty or Nice South |  |  |  |
| 0.0.0.224 | 255.255.255.240 | 16   | 10        | 12  | 12  | Naughty or Nice East  |  |  |  |
| 0.0.0.240 | 255.255.255.240 | 16   | 8         | 10  | 13  | Naughty or Nice West  |  |  |  |
|           |                 | 256  | 127       | 171 | 202 | Totals                |  |  |  |

# III. Database Information

# **Network Template**

This is the information that **will** be entered in the <u>RIPE database</u> about the organisation requesting the address space. To obtain practical information on using the RIPE database, try:

whois -h whois.ripe.net help

#### Network Template Fields

inchnum. Specifies the ID address range that will

inetnum: Specifies the IP address range that will be assigned to the enterprise. It will be filled out by the Local IR (or the RIPE NCC in exceptional cases) after the request is approved. It is needed when sending the object to the database. The field

can be left blank in the form.

netname: A concise, descriptive name for the network. The "netname" is used for administrative purposes like Internet Registry consistency checking. Valid characters are capital letters, numbers and dash. Use

whois to check that the netname is not

already in use.

descr: A short description of the organisation, including the location; The full postal

address is not needed as this is provided

in the person template (see below).

country: The ISO 3166 two-letter country code which

is most appropriate for the organisation. For networks that will cross international boundaries, choose the country in which the administrative contact is based. If you don't know the appropriate country

code, use the full name of the country.

\*\*admin-c: The NIC handle of the person who is the

administrative contact for the network. The administrative contact must be someone who is physically located at the site of the network. More than one contact can be

specified by adding more "admin-c" fields.

\*\*tech-c: The NIC handle of the technical contact

person. The technical contact person does not have to be physically located at the site of the network. There can be more than one name specified in multiple fields

for this template.

status: Specifies whether the request is provider

aggregatable or provider independent. Should be filled in with either "ASSIGNED

PA" or "ASSIGNED PI".

mnt-by: This optional field references a regis-

tered maintainer object, which specifies authorisation checks on changes to the inetnum object in the database. More information on the database maintainer ob-

ject can be found in ripe-120.

notify: This optional field specifies an e-mail

address to which notifications of changes

to the object should be sent.

changed: The e-mail address of the person complet-

ing this form, followed by the date. Specify the date in the <yymmdd> format as

shown in the example.

source: The source of the information. This field

will always be RIPE and should already be

filled in.

\*\*NOTE:Each person or role object in the database should contain a NIC handle which allows unambiguous identification of the appropriate persons as needed for Internet network administration. A RIPE NIC handle has the form "MK16-RIPE" but the database will also accept NIC handles that have been obtained from the InterNIC database (which have the form "DK58").

To obtain a NIC handle, just put

nic-hdl: AUTO-1

OR

nic-hdl: AUTO-1YourInitials

in the "nic-hdl:" field of the object to be added to the database. If "YourInitials" are specified (no less than 2, and no more than 4 letters), the database will use them in constructing a NIC handle. Otherwise, it will determine the letters itself. In both cases, the NIC handle is guaranteed to be unique.

You can reference these (AUTO-1 or AUTO-1YourInitials) as temporary NIC handles in the same update message in the fields of other objects that require a NIC handle (e.g. the inetnum object described above). The database software will then fill in the freshly assigned NIC handles in the objects. Note that you can also use other numbers.

# **Person Template**

If contact information for the network administration persons entered in the Network Template is already in the <a href="RIPE database">RIPE database</a>, then the person handling the request should check to see if it is up to date. For each person specified in the network template for which there is no entry in the <a href="RIPE database">RIPE database</a>, one should now be created by using the following template:

#### Person Template Fields

The full name of the person. No official person: titles and no dots between the names or

initials should be used.

The full postal address, written as it address:

would be for an ordinary postal mail with

one line for each part of the address.

The work telephone number of the person phone:

mentioned above; + <country code> <area code> <telephone number>. If there is more than one phone number, put each on a separate line, starting with the most appropri-

ate number for the person.

fax-no: The fax number of the person specified

above, this field is optional.

The e-mail address of the person specified e-mail:

above.

nic-hdl: The person's NIC handle.

mnt-by: This optional field references a registered

> maintainer object, which specifies authorisation checks on changes to the person object in the database. More information on the database maintainer object can be found in the RIPE document "Authorisation and Notification of Changes in the RIPE Database".

notify: This optional field specifies an e-mail ad-

dress to which notifications of changes to

the object should be sent.

The e-mail address of the person submitting changed:

the form, followed by the date. Use the <yymmdd> format for the date as shown in

the example.

source: This field will be RIPE and should already

be filled in.

#### #[NETWORK TEMPLATE]#

inetnum: x.x.x.x/24 netname: XMAS

descr: Santa's Workshop Inc.

descr: Christmas Toys Manufacturing Facility

descr: Northern Nowhere

country: NN

admin-c: SC12-RIPE tech-c: RR212-RIPE status: ASSIGNED PA

**notify:** *jbgood@antarctic.nn* **mnt-by:** *SANTA-SECURITY* 

changed: jbgood@antarctic.nn 960412

source: RIPE

#### #[PERSON TEMPLATE]#

person: Santa A. Claus

address: Santa's Workshop Inc. address: Jingle Bell Lane 12 address:1224CH Christmastown address:Northern Nowhere phone: +12 12 122 2121

phone: +12 12 122 2211 ext. 1221

fax-no: +12 12 221 1212 e-mail: santa@antarctic.nn

nic-hdl: SC12-RIPE

**notify:** *jbgood@antarctic.nn* **mnt-by:** *SANTA-SECURITY* 

changed: jbgood@antarctic.nn 960412

source: RIPE

#### #[PERSON TEMPLATE]#

person: Rudolf R N Reindeer address: Santa's Workshop Inc. address: Jingle Bell Lane 21 address: 1224CH Christmastown address: Northern Nowhere phone: +12 12 122 1111 fax-no: +12 12 122 2222 nic-hdl: RD212-RIPE

e-mail: rudolf@xmas.nn notify: jbgood@antarctic.nn mnt-by: SANTA-SECURITY

changed: jbgood@antarctic.nn 960412

source: RIPE

# IV. Additional Information

In the assessment of an assignment request, additional information is always useful, especially if there are some special circumstances that affect the request. In this section, please include any or all information that will help RIPE NCC Hostmasters to make a better and faster decision about the request. This will save a lot of time involved in the exchange of e-mails between RIPE NCC Hostmasters and the LIRs for additional information about the requests.

For example, if substantial network expansion is planned, it is useful to include a <u>deployment plan</u> with a list of events (and planned dates) that will lead to the use of the requested addresses. A <u>topological map</u> of the current and planned network infrastructure can also be helpful. The map can be sent to the RIPE NCC by fax.

Information regarding special circumstances, such as the use of old systems or special purpose hardware that affects the request, should be included with the request. In some cases, the RIPE NCC may ask for information about the user's understanding of network planning and management, to be sure the estimates in the addressing plan are realistic.

# 4. Example of a Completed European IP Address Space Request Form

X-NCC-RegID: nn.antarctic

### I. General Information

#### #[OVERVIEW OF ORGANISATION TEMPLATE]#

Santa's Workshop Inc. is divided into a Development Division which includes departments for candy cane construction, toy manufacturing and reindeer training; and a Surveillance Division that oversees investigations of naughty and nice children. The Development Division is located in Christmastown, and each department in the division has its own subnet. The Surveillance Division is an international operation with numerous branch offices operating around the globe.

#### #[REQUESTER TEMPLATE]#

name: Johnny B Good

organisation: Antarctic Internet Company

country: NN (or Northern Nowhere)

phone: +12 21 111 2222 fax-no: +12 21 222 1111 e-mail: jbgood@antarctic.nn

#### #[USER TEMPLATE]#

name: Santa A Claus

organisation: Santa's Workshop Inc.

country: NN

phone: +12 12 122 2121

fax-no: +12 12 221 1212 e-mail: santa@antarctic.nn

#### #[CURRENT ADDRESS SPACE USAGE TEMPLATE]#

|                               | Addresses Used  |           |         |      |      |                           |  |
|-------------------------------|-----------------|-----------|---------|------|------|---------------------------|--|
| Prefix                        | Subnet Mask     | Size      | Current | 1-yr | 2-yr | Description               |  |
| 193.1.193.0                   | 255.255.255.192 | 64        | 28      | 34   | 60   | Candy Cane Dept.          |  |
| 193.1.193.64                  | 255.255.255.224 | 32        | 10      | 21   | 28   | Toy Design                |  |
| 193.1.193.96<br>193.1.193.128 | 255.255.255.224 | 32<br>128 | 8       | 13   | 27   | Toy Manufacture<br>Unused |  |
| 193.1.194.0                   | 255.255.254     | 512       | 317     | 429  | 480  | Reindeer Training         |  |
| 193.1.196.0                   | 255.255.255     | 256       | 132     | 200  | 230  | Naughty or Nice           |  |
|                               |                 | 1024      | 495     | 697  | 825  | Totals                    |  |

# **II. The Request**

#### #[REQUEST OVERVIEW TEMPLATE]#

request-size: 256

addresses-immediate: 120 addresses-year-1: 171 addresses-year-2: 202 subnets-immediate: 6 subnets-year-1: 7 subnets-year-2: 7

inet-connect: Already connected through Antarctic Internet Company

country-net: NN

private-considered: yes

request-refused: yes - North Pole Inet refused us service because we believe reindeer can

fly.

PI-requested: no

addresses-returned: 192.0.2.0 - 192.0.2.255 to Antarctic Inet on 960623

#### #[ADDRESSING PLAN]#

| Relative  | Addresses Used  |      |           |     |     |                       |
|-----------|-----------------|------|-----------|-----|-----|-----------------------|
| Prefix#   | Subnet Mask     | Size | Immediate | 1yr | 2yr | Description           |
| 0.0.0.0   | 255.255.255.128 | 128  | 80        | 95  | 100 | Toy Design            |
| 0.0.0.128 | 255.255.255.224 | 32   | 12        | 17  | 25  | Toy Manufacture       |
| 0.0.0.160 | 255.255.255.224 | 32   | 0         | 15  | 28  | Elf Personnel         |
| 0.0.0.192 | 255.255.255.240 | 16   | 7         | 8   | 10  | Naughty or Nice North |
| 0.0.0.208 | 255.255.255.240 | 16   | 10        | 14  | 14  | Naughty or Nice South |
| 0.0.0.224 | 255.255.255.240 | 16   | 10        | 12  | 12  | Naughty or Nice East  |
| 0.0.0.240 | 255.255.255.240 | 16   | 8         | 10  | 13  | Naughty or Nice West  |

256 127 171 202 Totals

### **III. Database Information**

#### #[NETWORK TEMPLATE]#

inetnum: x.x.x.x/24 netname: XMAS

descr: Santa's Workshop Inc.

descr: Christmas Toys Manufacturing Facility

descr: Northern Nowhere

country: NN

admin-c: SC12-RIPE tech-c: RR212-RIPE status: ASSIGNED PA notify: jbgood@antarctic.nn mnt-by: SANTA-SECURITY

changed: jbgood@antarctic.nn 960412

source: RIPE

#### **#[PERSON TEMPLATE]#**

person: Santa A. Claus

address: Santa's Workshop Inc. adress: Jingle Bell Lane 12 address: 1224CH Christmastown address: Northern Nowhere

phone: +12 12 122 2121

phone: +12 12 122 2211 ext. 1221

fax-no: +12 12 221 1212 e-mail: santa@antarctic.nn

nic-hdl: SC12-RIPE

notify: jbgood@antarctic.nn mnt-by: SANTA-SECURITY

changed: jbgood@antarctic.nn 960412

source: RIPE

#### **#[PERSON TEMPLATE]#**

person: Rudolf R N Reindeer address: Santa's Workshop Inc. address: Jingle Bell Lane 21 address: 1224CH Christmastown address: Northern Nowhere

phone: +12 12 122 1111 fax-no: +12 12 122 2222

e-mail: rudolf@xmas.nn nic-hdl: RD212-RIPE

notify: jbgood@antarctic.nn mnt-by: SANTA-SECURITY

changed: jbgood@antarctic.nn 960412

source: RIPE

# #[TEMPLATES END]#



back to the top