Supporting Notes for the IPv6 End User Site Assignment Request Form in the RIPE NCC Service Region

Leo Vegoda

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Introduction

This document contains the supporting notes for the set of templates to be used by a Local Internet Registry (LIR) when submitting a request for an End User IPv6 site assignment with a network prefix shorter than /48. Please submit the form in plain ASCII text via e-mail to <hostmaster@ripe.net>.

This form is not for use when requesting approval for sub-allocations to be made to "downstream" ISPs. No request form is needed for that purpose as the policy does not require it.

The set of clean templates are provided in the RIPE document "IPv6 End User Site Assignment Request Form in the RIPE NCC Service Region" at:

http://www.ripe.net/ripe/docs/ipv6-assignment-request.html

Warning:
Requests sent to the RIPE NCC that lack a proper Registry Identifier (X-NCC-RegID) will be returned to the sender. Please include the Registry Identifier in the header of the message or at the top of this form. Further, any modifications to the templates may result in a delay in handling.

Supporting Notes for the Request Form Templates

X-NCC-RegID:

The Registry Identifier must be included in every message sent to <hostmaster@ripe.net>. It is used to identify the Local Internet Registry. More information about the Registry Identifier can be found in the RIPE document "Guidelines for Setting Up a Local Internet Registry at the RIPE NCC" at:

http://www.ripe.net/ripe/docs/new-lir.html

#[OVERVIEW OF ORGANISATION TEMPLATE]#

Q1: Please provide a short description of the organisation for which you are requesting the IPv6 address space.

Q2: Is this IPv6 request for the entire organisation or will other parts of the organisation also be requesting an assignment (perhaps from other LIRs)?

#[REQUESTER TEMPLATE]#

Please enter the details of the registered contact at your LIR making the request. This person should already be registered as a contact with the RIPE NCC.

name:
organisation:
country:
phone:
fax-no:
e-mail:
nic-hdl:

#[USER TEMPLATE]#

Please enter the details of the person at the End User organisation who will be responsible for the operation of this IPv6 network. This person will normally be the "admin-c:" contact for the network in the inet6num object.

name:
organisation:
country:
phone:
fax-no:
e-mail:

nic-hdl:

#[IPv6 ASSIGNMENT USAGE PLAN]#

The requesting organisation must show why a /48 network prefix is not sufficient for its networking needs.

Please complete the table below giving an overview of the usage of the IPv6 network. Where an adequate explanation of the use of a segment cannot be given in the table below please title each segment and provide a detailed explanation underneath the table.

Prefix	When Used			
Length	Immediate	1yr	2yr	Description

#[NETWORK TEMPLATE]#

```
inet6num:  *leave empty*
netname:   Chosen by LIR
descr:     Company name of End User organisation
descr:     Any additional descriptive details
country:   *specify the country*
admin-c:   *insert nic-handle of administrative contact*
tech-c:    *insert nic-handle of technical contact*
status:    *This is generated by the database itself*
mnt-by:    *specify LIR mntner name*
mnt-lower: *specify LIR mntner name* (optional)
changed:   *specify e-mail address*
source:    RIPE
```

The "inet6num:" attribute value (the IPv6 network prefix) should be left blank. It will be chosen by you (the LIR) from the available IPv6 address space allocated to you by the RIPE NCC when the approved prefix length is known.

The "netname:" attribute value should be a concise, descriptive name for the network. The netname is used for administrative purposes like Internet Registry consistency checking. Valid characters are letters, numbers, underscore and dash. Netnames do not need to be unique.

The "descr:" attribute should give information about the End User organisation using the network. It is a good idea to give the full legal name of the organisation. Multiple "descr:" attributes can be included in the object entered into the RIPE Database.

The "country:" attribute describes the country or countries the network will operate in. If the network is multinational a "#" can be used to allow multiple country codes to be listed using a single "country:" attribute.

The "admin-c:" attribute value should contain the nic-hdl of the person who is the administrative contact for the network. This should be someone who is administratively responsible for the network.

The "tech-c:" attribute value should contain the nic-hdl of the person who is the technical contact for the network. This should be someone who is technically responsible for the network. A contact at the LIR can be used for this attribute.

If the organisation has a role object it might want to reference this in the "tech-c:" attribute. Role objects are an efficient way of managing contact information for groups of people.

The "status:" attribute will be generated by the RIPE Database, so this attribute does not need to be filled in. The existing values are deprecated and the RIPE and APNIC communities are discussing replacement values. The discussion is archived at:

http://www.ripe.net/ripe/mail-archives/db-wg/20020401-20020701/msg00041.html

The mandatory "mnt-by:" attribute references a registered maintainer object, which specifies authorisation checks on changes to the **inet6num** object in the RIPE Whois Database.

The "mnt-lower:" attribute provides hierarchical authentication. They authenticate the creation of more specific **inet6num** objects under the allocation **inet6num** object preventing the unauthorised creation of objects.

The "changed:" attribute should have the e-mail address of the person at the LIR that will create this object in the Database.

All objects within the RIPE Whois Database have <RIPE> as a fixed value for the "source:" attribute.

#[MAINTAINER TEMPLATE]#

If you already have a mntner object, it is enough to reference the inet6num template. You do not need to fill in this template (since the information is in the database already).

It is highly recommended that the LIR put their maintainer as mnt-by for all inet6num sub-allocations and assignments made from their IPv6 allocation. Where an allocation will be made to an organisation that will assign /48 networks to itself or End Users, the LIR should bear in mind that it may want to reclaim the address space at some point. Thus, it should be careful when allowing maintainers other than their own to be used for those **inet6num** objects.

```
mntner:
```

```
descr:
admin-c:
tech-c:
upd-to:
mnt-nfy:
auth:
remarks:
notify:
mnt-by:
changed:
source:
```

#[PERSON TEMPLATE]#

If the person(s) are already in the RIPE Database, you do not need to fill out person templates for them here. It is enough to reference their nic-hdl in the inet6num template for the assignment.

```
person:
address:
address:
address:
e-mail:
phone:
fax-no:
mnt-by:
notify:
nic-hdl:
changed:
source: RIPE
```

#[ADDITIONAL QUESTIONS]#

1. IPv6 address space is allocated to LIRs and assigned to End Users according to policies set by the RIPE community.

Please confirm that you and the End Users have read the policy document "IPv6 Address Allocation and Assignment Policies" and agree to abide by it. The document can be found in the RIPE Document Store at:

http://www.ripe.net/ripe/docs/ipv6policy.html

2. Please explain why the End User site needs more than a /48 for its network?

3. Please provide a network diagram in PostScript or JPEG format showing the IPv6 network. It should indicate expected dates for completion of construction as well as indicate how much IPv6 address space is expected to be used in each segment.

The diagram can be sent either as a MIME attachment with your e-mail to <hostmaster@ripe.net> or can be faxed to +31-20-535-4445. If you choose to fax the diagram please make sure you include the ticket number you receive on the front page of the fax.

#[TEMPLATES END]#

Example of a Completed IPv6 End User Site Assignment Request Form

#[IPV6 SITE ASSIGNMENT REQUEST]#

#[REGISTRY ID]#

X-NCC-RegID: nn.nowhere

#[OVERVIEW OF ORGANISATION TEMPLATE]#

Q1. Please provide a short description of the organisation for whom you are requesting the IPv6 address space.

The Arctic Ministry of Elf Regulation and Procurement has 764,000 employees located in 18 buildings spread over four towns. The Ministry is divided into a number of departments that both grow and divide on a regular basis. Employment at the Ministry has increased by an average of 13% a year for the last 15 years. Continued growth is expected over the next couple of years.

Q2. Is this IPv6 request for the entire organisation or will other parts of the organisation also be requesting an assignment (perhaps from other LIRs)?

This request is for the whole Ministry. The Ministry will only be connected to Northern Nowhere Internet. This request is expected to cover their networking needs for the foreseeable future.

#[REQUESTER TEMPLATE]#

name: Santa Claus
organisation: Northern Nowhere Internet
country: NN
phone: +999 555 5555
fax-no: +999 555 5556
e-mail: santa.claus@nowhere.nn
nic-hdl: HOHO-RIPE

#[USER TEMPLATE]#

name: Elvis de Elf
organisation: Arctic Ministry of Elf Regulation and Procurement
country: NN
phone: +999 555 9999
fax-no: +999 555 9998
e-mail: elvis.de.elf@regandproc.ministry.gov.nn
nic-hdl: AUTO-1

#[IPv6 ASSIGNMENT USAGE PLAN]#

The requesting organisation must show why a /48 network prefix is not sufficient for its networking needs.

Please complete the table below giving an overview of the usage of the IPv6 network. Where an adequate explanation of the use of a segment cannot be given in the table below please title each segment and provide a detailed explanation underneath the table.

Prefix	**When Used**			
Length	Immediate	1yr	2yr	Description
/56	X			Financial Services Departments
/56	X			Construction Services Depts.
/56	X			Logistics Regulation
/50		X		Home Working Dial-In
/50		X		Internet Services (Lolly PoP)
/50		X		(Milk PoP)
/48		X		Head Office

Financial Services Departments: There are over 34,000 employees in the Financial Services Division. They are spread over two buildings and cover a lot of floor space. They no longer push paper: they push IP nowadays. There will be 125 subnets initially and we expect to have over 200 within 18 months.

Construction Services Departments: There are over 56,000 employees in the Construction Division. They use 30 floors in the Berg Building. They will initially have about 60 subnets and we expect to see over 130 in the next 18 months as the department starts using CADs etc....

Logistics Regulation: There are 20,000 regulators in this department. There will be a lot of addresses used for taking IP to the delivery fleet.

#[NETWORK TEMPLATE]#

```
inet6num:
netname:   NNI-Elf-Reg-and-Proc
descr:     Arctic Ministry of Elf Regulation and Procurement
descr:     Various locations in the Arctic
country:   NN
admin-c:   AUTO-1
tech-c:    HOHO-RIPE
mnt-by:    EXAMPLE-MNT
mnt-lower: EXAMPLE-MNT
changed:   santa.claus@nowhere.nn
source:    RIPE
```

#[PERSON TEMPLATE]#

If the person(s) are already in the RIPE Database, you do not need to fill out person templates for them here. It is enough to reference their nic-hdl in the **inet6num** object above.

```
person:   Elvis de Elf
address:  IT Department
address:  Boringham Building, Admin Street
address:  Arctic City, 1111AA
address:  Arctic
phone:    +999 555 9999
fax-no:   +999 555 9998
mnt-by:   EXAMPLE-MNT
nic-hdl:  AUTO-1
changed:  santa.claus@nowhere.nn
source:   RIPE
```

#[ADDITIONAL QUESTIONS]#

1. IPv6 address space is allocated to LIRs and End Users according to policies set by the RIPE community.

Please confirm that you and the End Users have read the policy document "IPv6 Address Allocation and Assignment Policies" and agree to abide by it. The document can be found in the RIPE Document Store at:

http://www.ripe.net/ripe/docs/ipv6policy.html

Mr. de Elf and we have read the IPv6 policy document and agree to it.
Neither of us considers IPv6 address space as property.

2. Please explain why the End User site needs more than a /48 for their network?

The Ministry network will be very large because of the massive number of civil servants employed by the Government of the Arctic Wastes. We expect to see well over 20,000 subnets in use within the next six months. Bearing in mind the aggregation principle, plans

for realistic network growth and everyone's lack of experience when it comes to designing IPv6 networks, we think a /47 is a reasonable assignment for the Ministry. Because the Ministry is single-homed to Northern Nowhere Internet their prefix will not appear in the DFZ.

3. Please provide a network diagram in PostScript or JPEG format showing the IPv6 network. Submission instructions can be found in the RIPE document "Supporting Notes for the Initial IPv6 Allocation Request Form in the RIPE NCC Service Region" at:

http://www.ripe.net/ripe/docs/ipv6-supp-assignment.html

It should indicate expected dates for completion of construction as well as indicate how much IPv6 address space is expected to be used in each segment.

We have sent a network diagram in JPEG format as a MIME attachment to this mail.

#[TEMPLATES END]#