Supporting Notes for the IPv6 Provider Independent (PI) Assignment Request Form

RIPE NCC

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This document contains instructions for LIRs on how to complete the "IPv6 Provider Independent (PI) Assignment Request Form".

The instructions are based on the "IPv6 Address Allocation and Assignment Policy".

General Information

```
#[GENERAL INFORMATION]#
%
% Please add your RegID.

request-type: pi-ipv6
form-version: 1.1
x-ncc-regid: nl.bluelight
```

Please do not change the value of the "request-type:" and "form-version:" fields.

Enter your Registry Identifier (RegID) in the "x-ncc-regid:" field. RegIDs have the following format: <country code>.<name>. If you do not know your RegID, please contact ncc@ripe.net.

Address Space User

```
#[ADDRESS SPACE USER]#
%
% Who will use the requested address space?


legal-organisation-name: North SantaBank
organisation-location: Santa City, NN
website-if-available: http://www.nsb.nn


% Is this request being sent by a sponsoring LIR on behalf of
% an End User? (Yes/No)

end-user-of-sponsoring-lir: Yes

% If yes, please attach a copy of the signed "End User Assignment
% Agreement" and the company registration papers of the End User.

% Also please confirm that the "End User Assignment Agreement"
% contains all of the elements listed in paragraph 2.0 of "Contractual
% Requirements for Provider Independent Resource Holders in the
% RIPE NCC Service Region".(Yes/No)

confirmation: Yes

% Does this End User already have address space that can be used for
% this assignment? (Yes/No)

space-available:  No
```

Enter the legal name and primary location of the organisation that will use this IPv6 PI address space in the "legal-organisation-name" and "organisation-location" fields. If this End

User has a website, enter the URL in the "website-if-available" field. Otherwise, enter "none" in this field.

If you are an LIR sending this request on behalf of an End User, you should answer "Yes" in the "end-user-of-sponsoring-lir" field.

If you answered "Yes" you should also confirm that all of the elements of paragraph 2.0 of "Contractual Requirements for Provider Independent Resource Holders in the RIPE NCC Service Region" are listed in the 'End User Assignment Agreement' that is signed by the End User and the sponsoring LIR. IPv6 PI assignments can only be made to End Users if there is a signed 'End User Assignment Agreement' between the sponsoring LIR and the End User.

For each IPv6 PI assignment that is requested through a sponsoring LIR for an End User, we need to receive a copy of 'End User Assignment Agreement' and the company registration papers of the End User.

You can find an example agreement online:

http://www.ripe.net/membership/lir-end-user-agreement

You can send us an agreement in your local language or use the English version.

If the request is for an LIR, you should also answer with "No". If this request is for an LIR you do not have to attach a copy of "End User Assignment Agreement" and company registration papers.

If there is any address space assigned to this End User that is not in use, indicate this in the "space-available" field. If you answer "yes", you can explain why the End User needs another assignment of address space in the "Network Description" section.

Initial Information

```
##[INITIAL INFORMATION]#
%
% Why is PI address space required rather than PA address space?

why-pi: North SantaBank will be multihomed.

% Is the End User requesting extra address space for routing and/or
% administrative reasons? (Yes/No)

routing-reasons: No

% Have you made the End User aware of the consequences and disadvantages
% of PI address space? (Yes/No)

confirmation: Yes.
```

In the "why-pi:" field, explain why PA address space cannot be used for this assignment.

You cannot request a larger assignment of address space than needed as conservation is one of the most important goals of the Internet Registry System. You can state whether you are requesting more address space than needed in the "routing-reasons:" field.

You must ensure that the End User understands and accepts that PI address space may be more difficult or more expensive to route than PA address space and then confirm this in the "confirmation:" field.

Addressing Plan

```
#[ADDRESSING PLAN]#
%
% When will the End User use this IPv6 PI assignment?

%
%       Subnet       Within     Within   Within
%       size (/nn)   3 months   1 year   2 years   Purpose

subnet: /48           x         -        -         Office LAN

number-of-subnets: 1

% Will the End User return any address space?

address-space-returned: no
```

The addressing plan shows how the End User will use the requested address space.

You can repeat the "subnet" row as many times as needed. Delete any empty "subnet" fields before you send the request.

Enter the size of each subnet in the “ Subnet size (/nn)” column. Please specify the size using IPv6 slash notation (for example, /48).

In the “ Purpose” column, write a short description of each subnet. If needed, you can write a more detailed description in the “Network Description” section of this form.

Complete the remaining columns with a cross (x) or a dash (-). For example, if you will use a subnet within three months, enter a cross in the “ Within 3 months” column and a dash in both the “ Within 1 year” and “ Within 2 years” columns.

In the "number-of-subnets" field, enter the total number of subnets listed in the addressing plan.

The smallest IPv6 PI assignment size issued by the RIPE NCC is /48

If there is any address space assigned to the End User that they will return, list each prefix in separate "address-space-returned" fields. The expected time for renumbering is three months. You can use the following syntax: <IP range> to <which LIR/ISP> in <time period> for this field.

Equipment Description

```
#[EQUIPMENT DESCRIPTION]#
%
% What equipment will be used and how will it use the requested
% address space?

equipment-name: Switches
manufacturer-name: Cisco
model-number: 25xx
other-data: 5 units
```

```
equipment-name: Servers
manufacturer-name: HP
model-number: various
other-data: 10 units

equipment-name: Workstations
manufacturer-name: Dell
model-number: GX150
other-data: 20 units

equipment-name: Routers
manufacturer-name: Cisco
model-number: 3825
other-data: 2 units
```

The equipment description will help us to understand the requirements listed in the addressing plan and can be repeated as many times as needed. Leave an empty line before each new "equipment-name" field.

In the "equipment-name" field, enter the type of equipment requiring address space from this assignment.

Enter the vendor name and model number for the piece of equipment in the "manufacturer-name" and "model-number" fields.

If you have any more information about how this piece of equipment will use the requested address space, add this in the "other-data" field.

Network Description

```
#[NETWORK DESCRIPTION]#
%
% Please add more information if you think it will help us understand
% this request. If the End User is requesting more than a /48 please
% explain why:

North SantaBank has an office in Santa City that will be IPv6 enabled.
```

You can use this space for additional information that you think will be helpful for us (RIPE NCC) when we evaluate your request. A clearer understanding of the network and its addressing needs can help us to evaluate your request more quickly.

Network Diagram

```
#[NETWORK DIAGRAM]#
%
% You can attach a network diagram or other supporting documentation,
% particularly if the End User is requesting more than a /48
%
% Have you attached any files/documents to this request? (Yes/No)
```

```
file-attached: Yes
```

A network diagram (topology map) can help us to understand the set-up of the network and its addressing needs.

Supporting documentation is useful if the organisation will require more than /48.

Database Template(s)

```
#[DATABASE TEMPLATE(S)]#
%
% Please complete all of the fields below.

inet6num:
netname: NSB-NET
descr: North SantaBank
country: NN
org: ORG-NS31-RIPE
admin-c: ACM2-RIPE
tech-c: HOHO1-RIPE
status: ASSIGNED PI
mnt-by: RIPE-NCC-END-MNT
mnt-lower: RIPE-NCC-END-MNT
mnt-by: SANTA-MNT
mnt-routes: SANTA-MNT
mnt-domains: SANTA-MNT
changed: hostmaster@ripe.net
source: RIPE
```

Leave the "inet6num" field empty as we will choose the address range.

The "netname" should be a short and descriptive name for the network and should reflect the organisation name of the End User.

Enter the End User's organisation name in the "descr" field.

Use the ISO country code of the End User's location in the "country" field. If the End User is multi-national, repeat the "country" field as many times as needed. Alternatively, you can use EU or ZZ if you do not wish to show the End User's location in the inet6num object.

Enter the org-ID of the End User's organisation object in the "org" field.

The nic-handle of the role or person object in the "admin-c" field should reflect someone who is administratively responsible for the network.

The nic-handle of the role or person object in the "tech-c" field should reflect someone who has technical knowledge of the network.

The "status" field must be ASSIGNED PI.

The "mnt-by" and "mnt-lower" fields must contain RIPE-NCC-END-MNT. You can put the LIR's or End User's maintainers in separate "mnt-by", "mnt-routes" and "mnt-domains" fields.

The "mnt-by" field shows which maintainer authenticates object updates. The "mnt-routes" and "mnt-domains" fields show which maintainers authenticate the creation of route6 and

domain objects.
The RIPE Database must contain all of the objects that you use.
The "changed" field must be hostmaster@ripe.net.
The "source" field must be RIPE.

End of Request

Best Regards,

Jan Janssen, Bluelight Admin