

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

*RIPE NCC*

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This document contains instructions for LIRs on how to complete the “Provider Independent (PI) Assignment Request Form” <http://www.ripe.net/ripe/docs/pi-request.html>.

The instructions are based on the “IPv4 Address Allocation and Assignment Policy for the RIPE region” <http://www.ripe.net/ripe/docs/ipv4-policies.html>.

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## General Information

```
#[GENERAL INFORMATION]#  
%  
% Please add your RegID.  
  
request-type: pi-ipv4  
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  
  
% 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 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 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 at the end of this form.

## Initial Information

```
#[INITIAL INFORMATION]#  
%  
% Why is PI address space required rather than PA address  
% space?  
  
why-pi: North SantaBank will be multihomed. We cannot use PA address space because our uplinks  
do not allow their address space to be announced by other Autonomous Systems.  
  
% 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.  
Remember that you should encourage the use of PA address space where possible.

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. You can find more details on the consequences and disadvantages of PI address space in the “IPv4 Address Allocation and Assignment Policy for the RIPE region” (see above for url).

## Addressing Plan

#[ADDRESSING PLAN]#

%

% How will the End User use this address space?

%

| %       | Subnet size<br>(/nn) | Within<br>3 months | Within<br>1 year | Within<br>2 years | Purpose             |
|---------|----------------------|--------------------|------------------|-------------------|---------------------|
| subnet: | /26                  | 32                 | 64               | 64                | Employee VPN Access |
| subnet: | /26                  | 18                 | 34               | 64                | Financial Services  |
| subnet: | /26                  | 22                 | 30               | 60                | Workstations        |
| subnet: | /27                  | 11                 | 15               | 28                | Public Services     |
| subnet: | /27                  | 7                  | 18               | 30                | Operations          |
| subnet: | /24                  | 176                | 192              | 240               | Branch Offices      |
| totals: | /23                  | 266                | 353              | 486               |                     |

number-of-subnets: **6**

% Will the End User return any address space?

address-space-returned: **85.118.187/24 to nl.bluelight in 3 months**

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.

In the “Subnet size (/nn)” column, enter a slash notation prefix for each subnet. Each entry should be large enough to contain the number of addresses needed for that subnet over the next two years.

In the “Within 3 months”, “Within 1 year” and “Within 2 years” columns, enter the number of addresses needed immediately for each subnet, and the estimated need for the next two years. You can change the time periods if needed. These columns can either contain numbers (for example, 128) or slash notation prefixes (for example, /25). Multiple slash notation prefixes must be separated by comma(s) with no blank spaces (for example, /25,/27).

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

In the “totals” row, add the totals of each column. The total of the “Subnet size (/nn)” column should be the total amount of address space you are requesting for this assignment.

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

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: <x.x.x.x/xx> 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: **Core switches**

manufacturer-name: **Cisco**

model-number: **25xx**

other-data: **3 units**

equipment-name: **Servers**

manufacturer-name: **HP**

model-number: **various**

other-data: **40 units**

equipment-name: **Firewalls**

manufacturer-name: **Cisco**

model-number: **PIX 515 E**

other-data: **2 units, 8 IP addresses**

equipment-name: **Workstations**

manufacturer-name: **Dell**

model-number: **GX150**

other-data: **22 units, 1 IP address each**

equipment-name: **Routers**

manufacturer-name: **Cisco**  
model-number: **3825**  
other-data: **2 units**

equipment-name: **Routers**  
manufacturer-name: **Cisco**  
model-number: **AS5300**  
other-data: **1 unit, 32 ports**

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.

**We have 11 branches across Santa City linked by corporate fibre channels. We will assign a /28 subnet for each branch. Each branch will have SMTP, WWW, file server, e-banking and dial-up pool.**

**Public Internet Services: SMTP (2 IP addresses), WWW (6 IP addresses, 2 servers), FTP (1 IP address), DNS (2 IP addresses)**

**Financial Services: 6 servers, 3 IP addresses each.**

**Operations network: Security, Monitoring, VPN, Proxy, DNS**

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]#  
%  
% Have you attached a network diagram to this request? (Yes/No)

diagram-attached: **Yes**

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

## Database Template(s)

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

inetnum:
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-HM-PI-MNT
mnt-lower:    RIPE-NCC-HM-PI-MNT
mnt-by:       SANTA-MNT
mnt-routes:   SANTA-MNT
mnt-domains:  SANTA-MNT
changed:      hostmaster@ripe.net
source:       RIPE
```

Leave the “inetnum” 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 INETNUM 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-HM-PI-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 route and domain objects.

The RIPE Database must contain all of the objects that you use.

The “changed” field must be [hostmaster@ripe.net](mailto:hostmaster@ripe.net).

The “source” field must be RIPE.

## **End of Request**

`#[END of REQUEST]#`

**Best Regards,  
Jan Janssen, Bluelight Admin**

Please write your full name below the “#[END of REQUEST]#” header.