

# 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](#)"

The instructions are based on the "[IPv4 Address Allocation and Assignment Policy for the RIPE NCC Service Region](#)".

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## General Information

```
#[GENERAL INFORMATION]#
```

```
%
```

```
% Please add your RegID.
```

```
request-type: pi-ipv4
```

```
form-version: 1.3
```

```
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](mailto: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 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 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. 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.

You can find an example agreement online:

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

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

If this request is sent by a Direct Assignment User, you answer "No" to the above two questions. Direct Assignment Users have already signed an 'End User Assignment Agreement' with the RIPE NCC. If the request is for an LIR, you should also answer with "No".

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. 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.
```

```
% Is 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.

The RIPE NCC will assign additional IPv4 addresses to an End User in order to make the assignment size a multiple of a /24 if the End User demonstrates the intent to announce this address space for the purpose of multihoming to two or more Autonomous Systems (AS) which the End User does not own or control. Cumulatively, no more than 255 additional IPv4 addresses may be assigned to any particular End User for the purposes outlined above. 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 document "IPv4 Address Allocation and Assignment Policy for the RIPE NCC Service Region".

## Addressing Plan

```
#[ADDRESSING PLAN]#
```

```
% As of 1 January 2010 assignments are for a period of up to 12 months.
```

```
% As of 1 July 2010 assignments are for a period of up to 9 months.
```

```
% As of 1 January 2011 assignments are for a period of up to 6 months.
```

```
% As of 1 July 2011 assignments are for a period of up to 3 months.
```

```
%
```

% How will the End User use this address space?

%

%	Subnet size (/nn)	Immediate Requirement	Intermediate Requirement	Entire Period	Purpose
	subnet: /26 Access	32	64	64	Employee VPN
	subnet: /26 Services	18	34	64	Financial
	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 order to demonstrate the predicted growth of your network, you must provide an estimate of the address space you will require over three distinct periods: Immediate, Intermediate and the Entire period. Your estimates should include interfaces used for hosts, routers, gateways, terminal concentrators and any other machines requiring one or more network interfaces. 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).

Starting on 1 January 2010, a gradual reduction in the assignment period will be applied. As the assignment period changes, so to will the information required:

Up to 30 June 2010, assignments are for a period of up to 12 months. Therefore, your request should reflect your immediate requirements, predicted requirements for the coming 6 months, and predicted requirements for the coming 12 months.

As of 1 July 2010, assignments are for a period of up to 9 months. Your request should reflect your immediate requirements, predicted requirements for the coming 6 months, and predicted requirements for the coming 9 months.

As of 1 January 2011, assignments are for period of up to 6 months. Your request should reflect your immediate requirements, predicted requirements for the coming 3 months, and predicted requirements for the coming 6 months.

As of 1 July 2011, assignments are for a period of up to 3 months. Your request should reflect your immediate requirements, predicted requirements for the coming 2 months, and predicted requirements for the coming 3 months

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 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.

## Supporting Documentation

#[SUPPORTING DOCUMENTATION]#

%

% If this request is being sent by a sponsoring LIR on behalf of  
% an End User, please attach a copy of the signed "End User Assignment  
% Agreement" and the company registration papers of the End User.  
% You can also attach a network diagram or other supporting  
% documentation.

%

% Have you attached any files/documents to this request? (Yes/No)

file-attached: Yes

For each 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.

If this request is for an LIR or a "Direct Assignment User", you do not have to attach a copy of 'End User Assignment Agreement' and company registration papers.

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-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 "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-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 **route** 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**

#[END of REQUEST]#

Best Regards,  
Jan Janssen, Bluelight Admin

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