Guidelines for Setting up a Local Internet Registry at the RIPE NCC

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ABSTRACT

This document aims to provide the necessary information for those who are considering setting up a Local Internet Registry (LIR) with the RIPE NCC. In this document, some initial guidelines are given on which organisations usually set up an LIR. Further, the steps necessary to set up an LIR are described. Finally, the RIPE NCC IP address allocation and assignment policies are discussed.

Table of Contents

ABSTRACT
1.0 Introduction
1.1 Terminology
2.0 When to Set up a Local Internet Registry
2.1 Responsibilities of an LIR
2.2 Costs of Operating an LIR
2.3 Address Space
2.4 Business Considerations
2.5 Other Considerations
3.0 Setting up an LIR
3.1 Establishment of an Entry in the LIR List
3.2 Address Space requirements
3.3 Agreement to LIR Procedures
3.4 Agreement on the Provision and Use of the RIPE NCC Services and Payment of Fees
4.0 RIPE NCC Fees and Billing Procedures
5.0 Requesting Address Space for the First Time
6.0 Training Courses
7.0 Appendices

7.1 New LIR Application Form

- Description of all the individual fields:
- Registry Identifier (RegID)
- Organisation Name
- LIR Type
- Community Served
- Postal Address
- Countries Served
- LIR-contact
- Telephone Number
- Telefax Number
- Electronic Mail Address
- Remarks
- Local Internet Registries Mailing List
- General Assembly Mailing List
- Billing Address
- Electronic Billing Address
- Billing Reference
- VAT Number
- Billing Preference
- Billing Scheme
- Billing Remark

7.2 Sample Form

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1. Introduction

IP addresses for use on the Internet are distributed in a system of hierarchically organised Internet Registries. The RIPE NCC is the Regional Internet Registry (RIR) that has the authority to distribute IP addresses and AS numbers in Europe, the Middle East, Central Asia, and North Africa.

In order to obtain IP addresses and AS numbers directly from the RIPE NCC, an organisation needs to become a member of the RIPE NCC and set up a Local Internet Registry (LIR). Organisations usually set up an LIR because they want to become multihomed and use external gateway protocols (e.g. BGP4) or they need large amounts of IP address space for their operations as Internet Service Providers (ISP).

However, in most cases, organisations can obtain IP addresses and/or Autonomous System Numbers from an upstream service provider and there is no need to obtain address space directly from the RIPE NCC.

1.1 Terminology

Clarification of the terms used by the RIPE community:

An **allocation** is a block of address space that an LIR receives from the RIPE NCC. The LIR can announce the entire allocation as one route to the rest of the Internet and use this block of

address space for its customers and its own infrastructure.

An **assignment** is a smaller block of address space that an LIR assigns to its customers for their networks, or uses for its own infrastructure. For example, if an LIR needs a block of 128 addresses for one of its Points of Presence, we would call this an "assignment". Assignments usually come out of the LIR's allocation.

Assigned address space is actually used to operate networks, whereas allocated address space is held by Internet Registries for future assignments to end users.

2. When to set up a Local Internet Registry (LIR)

When deciding whether or not to become an LIR, an organisation should consider if they expect the need for large amounts of address space (e.g. 4096 addresses) in the future. An organisation should also consider how important having their own routable block is, and whether they are ready for the extra cost, administrative overhead and responsibility of running an LIR. In this section we offer some guidelines on this issue.

The RIPE NCC can only accept LIR applications from organisations that have a registered legal entity located in the RIPE NCC service region. To determine which regional registry you should contact for services, please refer to:

http://www.ripe.net/ripencc/mem-services/general/rir-areas.html

2.1. Responsibilities of a Local Internet Registry

An LIR can receive IP address allocations from the RIPE NCC. The LIR itself is responsible for the assignment of IP addresses that it makes from its allocated blocks. These responsibilities include:

- Making the right assignment decisions following global assignment policies (as described in the "European Internet Registry Policies and Procedures").
- Keeping records of the information gathered in the assignment process (as described in "European Internet Registry Policies and Procedures").
- Storing assignment information in the RIPE Database and keeping this information up to date (as described in the "European Internet Registry Policies and Procedures").

The RIPE NCC has a consistency checking and auditing activity set up to train LIRs and help them follow the procedures. This process described in "RIPE NCC Consistency and Auditing Activity" is intended to ensure that LIRs follow their responsibilities correctly.

2.2. Costs of Operating an LIR

The direct costs of operating an LIR, i.e. fees paid to the RIPE NCC for services, are outlined in the "RIPE NCC Billing Procedure and Fee Schedule". Additionally, an LIR can expect extra costs in regard to the hiring of extra staff to deal with the administrative overhead. Depending on the size of the LIR's customer base, an LIR might need up to one full time

staff member doing LIR administrative work. The administrative overhead should not be underestimated.

2.3. Address Space

Anyone can become a Local Internet Registry, however certain criteria must be met in order to qualify for an allocation of IP address space (this criteria is outlined further on in this document).
An LIR receives its first allocation upon approval of its first address space request(s). The LIR can announce this block as one route to the rest of the Internet. The LIR can use this block for its internal network and, if it is a Provider LIR, it can also use this block for assignments to customers. After the initial block is used up, the LIR may request a new allocation of a size that matches the growth of its customer base.

2.4. Business Considerations

When changing upstream providers, an organisation that does not operate an LIR will probably have to renumber their networks and return the formerly used address space to the LIR it was received from. Organisations operating an LIR do not depend on others for assigning address space to their own or their customers' networks. On the other hand, operating an LIR takes up considerable amounts of time and financial resources that should not be underestimated.

2.5. Other Considerations

If an organisation already operates an LIR in the RIPE NCC region or another part of the world and wishes to open another LIR, they will have to provide the RIPE NCC with a valid reason why they need to operate another LIR. The RIPE NCC will ask for some extra information and argumentation in this case.

If an organisation is part of a large enterprise that already has address space, then the RIPE NCC will need some extra information before it can set up an LIR. For example, why address space from the main headquarters cannot be used for the network, and why it is necessary to receive address space from the RIPE NCC instead (or in addition).

As of November 2001 all organisations that currently use 1024 addresses (a /22) or less must agree to renumber the address space and return the ranges to the Upstream Provider after the start up procedure of the new registry is completed and they have received the first allocation from the RIPE NCC.

3. Setting up an LIR

Before you can set up an LIR at the RIPE NCC, you must complete the New-LIR application process. The process of setting up an LIR can be divided into 4 steps:

1. Establishment of an entry in the LIR list
2. Agreement to LIR Procedures

3. Agreement on the Provision and Use of the RIPE NCC Services
4. Payment of Fees

The steps need to be performed in the order specified above.

Upon the completion of the registry file (step 1) the RIPE NCC will send out an invoice for our services. This invoice will have to be paid during the start up process.

Please note that much communication is needed between the LIR and the RIPE NCC. (For requiring the documents listed below, for setting up the LIR and for requesting address space.) All communication must be via e-mail and in English.

3.1. Establishment of an Entry in the LIR List (creation of the registry file)

As a first step, we need to collect some administrative information about the new LIR such as address and telephone numbers and names of contact persons, the billing information, including your VAT number if your billing address is in the EU.

Please fill in the form in Appendix A or the online web form and e-mail it to <new-lir@ripe.net> for processing. Upon receipt of your request, a ticket number will be automatically assigned. This ticket number can be found in the Subject: line of the acknowledgment. Please use this ticket number in all your messages during the set up of your LIR. At this point in time there are only 2 ticket status categories for New-LIR requests: OPEN REG (the RIPE NCC is waiting for an answer from the applicant), and OPEN NCC (the RIPE NCC will attend to your e-mail as soon as possible). It is possible to check the current status of your request at:

http://www.ripe.net/cgi-bin/rttquery

We will ask for more information according to your situation. (See: http://www.ripe.net/ripencc/new-mem/flowchart3.html) Once we have all the information we asked for, we will create a "registry file" for the LIR. After all four steps have been completed, some of the administrative information in this file will be publicly accessible on the RIPE NCC web site. For the most part the file will only be used internally by the RIPE NCC to keep information about the LIR.

As soon as the RIPE NCC has created a registry file for you, you will receive a registry identifier (RegID) that the RIPE NCC will use from then on to identify you as an LIR and distinguish you from other organisations.

The information supplied to us in the application form, such as address, e-mail address, contact persons, etc. should be kept up-to-date. Note that the information you provide in the application form is not stored in the RIPE Database. If you want to change any information about your LIR or just want to know about the current contents, please send an e-mail to lir-help@ripe.net, including your RegID.

After step 1 is completed, the RIPE NCC Billing department will send an invoice to the billing address specified by the new LIR. The amount on the invoice has to be paid before the

LIR will receive services from the RIPE NCC such as requesting address space or attending an LIR training course (though we can continue step 2 and step 3 before receiving the payment).

3.2. Address Space requirements (see also http://www.ripe.net/ripencc/new-mem/flowchart3.html)

In order to receive an initial allocation, an LIR needs to demonstrate either the utilisation of a minimum /22 (1024 addresses), or an immediate need for an assignment of at least a /22 . This can include your own infrastructure as well as your customers' networks that will be renumbered into your allocation.

3.2.1. To prove an immediate need of at least 1024 addresses, you need to provide the following information:

a. A Deployment Plan

The deployment plan should include a list of events and dates, which will lead to the use of addresses within the near future. We realise it may be hard to give exact figures for a two-year time frame, but please try to give a reasonable estimate.

A deployment plan should be in the same format as shown in the following example:

Date Equipment Ordered	Planned Delivery Date	Planned Operational Date	Type of Equipment	Number of Hosts	Location
Jan 2002	Feb 2002	Mar 2002	Backbone routers	254	Paris
Jan 2002	Mar 2002	Apr 2002	Network Access Servers	720	London
Jan 2002	Mar 2002	Apr 2002	Network Access Servers	480	Berlin
Jan 2002	Jun 2002	Jul 2002	CMTS	254	Madrid
Jan 2002	Mar 2002	Apr 2002	Access Routers for leased lines	1024	Lisbon
Jan 2002	Mar 2002	Apr 2002	Network Access Servers	480	Rome

b. A Topology Map

The topology map should show the network design, an example can be seen at the following URL:

http://www.ripe.net/ripencc/mem-services/registration/topology-map.html

c. Customer Contracts

Please provide copies of signed customer contracts if you intend to make IP address assignments to your customers' networks out of your allocation.

d. Peering Agreements

Please provide copies of signed peering agreements if appropriate.

e. Purchase of Equipment

We require proof of purchase of the equipment described in the deployment plan and/or topology map. This proof can be either in the form of delivery notes for equipment or copies of order forms.

3.2.2. To prove the utilisation of an already assigned /22 range of addresses or more, we require the following information:

a. Database Objects

Objects detailing the address space assignment(s) must be registered in the RIPE Database.

b. Source of address space

Please supply us with the RIPE NCC ticket number of the approved address space assignment supplied by the RIPE NCC to the previous provider. If a ticket number is not available, please specify the name of the LIR that provided this address space.

c. Customer contracts

Copies of signed customer contracts should be provided if your customers' networks are going to be renumbered into your address allocation.

d. Current Address Space Usage

Please specify the details of how the current address space is being utilised using the following template:

Relative Prefix	Size	Current	yr-1	yr-2	Description
.....	....	....	....	....	.....
.....	....	....	....	....	.....
.....	....	....	....	....	.....
.....	....	....	....	....	.....
.....	....	....	....	....	.....

.....	....	....	....	....	.....
.....	....	....	....	....	.....
.....	....	....	....	....	.....
.....	....	....	....	....	**Totals**

Please see below for an example:

Relative Prefix	**Size**	**Current**	**yr-1**	**yr-2**	**Description**
193.0.0.0	512	240	480	480	Dynamic Dial-up
193.0.2.0	512	400	512	512	Dynamic IP DSL
193.0.4.0	256	256	256	256	P2P links (Bratislava)
193.0.5.0	256	128	256	256	P2P links (Bratislava)
193.0.5.128	128	120	128	120	Office Lan
193.0.5.192	64	0	42	50	Office Lan
193.0.5.224	32	18	28	32	Backbone routers
193.0.6.0	8	3	4	4	MP3 servers
	1768	1037	1706	1710	**Totals**

Each entry in the table above is made up of fields that specify the current and projected use of the address space. As in the example, all address space must be included even if it is not yet in use.

The information required in section 3.2. must be sent via fax or postal mail to the RIPE NCC. Ensure that you include the ticket number on the front of the fax.

3.3 Agreement to LIR Procedures

The RIPE NCC must have a clear assurance from the contact persons listed in the "registry file" that they will abide by the LIR policies and procedures. The current RIPE documents the LIRs definitely should be familiar with are:

* European Internet Registry Policies and Procedures
http://www.ripe.net/ripe/docs/ir-policies-procedures.html

* European IP Address Space Request Form
http://www.ripe.net/ripe/docs/iprequestform.html

* Supporting Notes for the European IP Address Space Request Form

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

* RIPE NCC Autonomous System Number Request Form
http://www.ripe.net/ripe/docs/asrequest.html

* Supporting Notes for the RIPE NCC Autonomous System Number Request Form
http://www.ripe.net/ripe/docs/asnsupport.html

* Provisional IPv6 Assignment and Allocation Policy Document
http://www.ripe.net/ripe/docs/ipv6policy.html

* IPv6 sub-TLA Request Form
http://www.ripe.net/ripe/docs/ipv6requestform.html

* RIPE Database Reference Manual
http://www.ripe.net/ripe/docs/databaseref-manual.html

* RFC 1918: Address Allocation for Private Internets
ftp://ftp.ripe.net/rfc/rfc1918.txt

Please have the LIR-contacts personally confirm by electronic mail that they have read and understood the above, and will commit to abide by the guidelines as defined in these RIPE documents and future guidelines as defined by the RIPE community.

Note that only the persons registered as LIR-contacts have to be familiar with these guidelines and documents, as they are the only ones who can request services from the RIPE NCC. If other persons have to be added at a later stage, RIPE NCC will also ask these new contacts for the confirmation on this matter.

3.4. Agreement on the Provision and Use of RIPE NCC Services and Payment of Fees

In order to have an official contract between the LIR and the RIPE NCC, we will need two signed copies of the service agreement from you. The agreement needs to be signed by somebody at the LIR with the power to sign contracts (usually a director). Please include the title of the person signing the contract, as well as the name, location where it was signed, and the date when it was signed. Please do not alter the layout or content of the service agreement.

Since the RIPE NCC will also sign the agreement you should send them in duplicate by postal mail to us. Upon receipt we will sign them and return one copy of the agreement to you.

The RIPE NCC can only supply services to organisations that have a legal entity in the RIPE NCC service region. Therefore, with the service agreement, we ask you to send a copy of your organisation’s registration with the local Chamber of Commerce, or its equivalent. The

RIPE NCC will only sign the service agreement in the English language.

Our current postal address is:

RIPE NCC
Singel 258
1016 AB Amsterdam
The Netherlands

Upon receipt of the service agreement and registration documents, e.g. the Chamber of Commerce form, a check will be made to see if all the other steps have been completed and if the invoice has been paid. If everything is complete, we will raise the service level of the LIR, which will enable you to start using the services of the RIPE NCC.

Please see the documents "RIPE NCC Articles of Association" and "RIPE NCC General Terms and Conditions" in the ftp or web directories.

4. RIPE NCC Fees and Billing Procedures

The RIPE NCC charges new LIRs a one-time "Start-up Fee" as well as a yearly "Service Charge". The start-up fee is partially used to pay for the LIR training courses, which all new LIRs are encouraged to attend. These fees can change from year to year, and therefore rather than listing them here, please read the RIPE NCC Billing Procedure and Fee Schedule in the same web and ftp directories as the above documents.

The yearly fees are based on the billing category of the LIR. Each LIR has a category (usually SMALL, MEDIUM or LARGE) based on how many allocations they have received from the RIPE NCC and on the age of the allocations. The way these categories are calculated is described in the current document RIPE NCC Activities, Expenditures, and Charging Scheme.

An LIR is assigned a minimum-billing category by the RIPE NCC; however an LIR can always choose to upgrade itself to a higher category. Please note that the billing category has nothing to do with the amount of addresses an LIR can request from the RIPE NCC, in other words a SMALL new LIR can request just as many addresses as a LARGE new LIR, as long as the LIR meets the requirements for an allocation.
(see: http://www.ripe.net/ripencc/new-mem/flowchart3.html)

There is also a special billing category called "Enterprise" which applies to LIRs that only assign addresses to their own organisations' networks and not to customers.

A new LIR will receive an invoice including the start-up fee and its yearly fee for this year. An LIR can also choose to pay the fees on a half yearly or quarterly basis, but there is an extra fee attached to this. The yearly fee will be based on the quarter of the year when the LIR signs up. For example, if an LIR signs up with the RIPE NCC in July, they won't have to pay the entire yearly fee for that year, but only half of the yearly fee.

An LIR is billed from the moment they complete step 1, not from the moment they start requesting address space. If an organisation sets up an LIR but does not start requesting address space until months later, they still have to pay for those months. In such a case it is better for the organisation to wait with setting up the LIR until they actually need to request for IP address space.

Be aware though that most LIRs are not set up overnight, so please apply well in advance of the operation date. Please consider one month to be a guideline for the completion of your LIR, as long as your application is well completed.

The reason behind having different billing categories is because larger LIRs tend to send more requests and generate more work for the RIPE NCC staff. If your organisation has a billing address in the European Union, please include your VAT number in the application form.

For questions regarding bills and payments, please contact <billing@ripe.net>.

5. Requesting Address Space for the First Time

After an organisation has officially set up an LIR (the four steps have been completed), they will receive a message from <new-lir@ripe.net> notifying them that the set up has been completed. From then on the LIR should use the <Hostmaster@ripe.net> mailbox for requesting address space or Autonomous System numbers. Policy or registry related questions can be sent to <lir-help@ripe.net>. Please do not send address space requests to <new-lir@ripe.net> nor use the ticket number that was assigned to you for the setting up process of the new LIR. As soon as your LIR is established, this ticket will be closed.

All of these issues are described in more detail in the RIPE document "European Internet Registry Policies and Procedures".

To receive your first allocation from the RIPE NCC, send your first request(s) for an assignment. The request(s) might be for an assignment to/for a customer's network, or for the LIR's own internal infrastructure. Do not mix address space of customers and your own network in one request. Please fill out a European IP Address Space Request Form and send this to <hostmaster@ripe.net>. You will need to include your Registry Identifier (the "RegID" in the New-LIR application form) at the top of the message. Please always include your RegID in all messages sent to the RIPE NCC Hostmaster or LIR-help mailbox. The RIPE NCC can only process requests from official LIRs, so if we receive a message sent to this mailbox without a "RegID", we assume it's from an end user and the message will be rejected.

Please note also that the Hostmaster mailbox is ticketised (much like the New-LIR mailbox) to help us keep track of the requests. When you send in a new request, we will assign another ticket number to it. You should then always use that same ticket number for any messages exchanged about that same request. Each new request needs a separate ticket number. Please send new requests without a ticket number in the subject header to have a new one assigned. If there are errors in your first request, our syntax checking robot will send you a reply prompting you to adjust your request. After editing your request, send it again under the same

ticket number. Once it is free of errors, you will receive an e-mail saying it has been passed to the Hostmaster wait queue and is ready to be processed. For help with the Hostmaster auto mailbox, please read "Hostmaster auto mailbox Help Page" located at:

http://www.ripe.net/ripencc/mem-services/registration/status.html

Your request usually will be handled in a few days, depending on the size of the wait queue. It is possible to check the current status of your request at:

http://www.ripe.net/cgi-bin/rttquery

After you have sent in your first request(s) for an address space assignment and a RIPE NCC Hostmaster has approved it, we will allocate a /20 block of addresses (4096 IP addresses) to your LIR. To be fair to all LIRs, this amount is the same for each new LIR, (unless the requested assignment(s) is (are) larger than this block). You can announce this prefix to your transit provider/peers.

Please note that even though you will now have an allocated block from the RIPE NCC, you cannot make any assignments from this range without consulting the RIPE NCC for approval. To make you familiar with the LIR procedures and to provide additional support in your start-up phase, we follow a "hand holding" procedure for all new LIRs.

Every LIR has an "assignment window" (AW). This AW is initially zero. This means that you cannot make any assignment without prior approval from the RIPE NCC.

After the first request, please continue to send all requests for address space to the RIPE NCC for approval. We would like to see a request form (European IP Address Space Request Form) completed for every single request for address space. This applies to requests from your customers as well as for address space you may need for your internal network. We always expect you to include your own comments and evaluation results in every request you send to us. We will then approve the request or recommend the assignment of a different amount of address space. If we approve the assignment, we will send you a message notifying you of this, and you will then have to enter the information about this assignment into the RIPE Whois database.

This procedure will only last for a short period of time until we are confident that you are familiar with the registration procedures. We will then increase your assignment window so that you can make assignments up to a certain size without requesting approval. For example, if we have seen several correct requests for /25's and /26's from you, we might raise your Assignment Window to a /25. This means that you can then assign up to 128 addresses to any customer in a one-year period. If a customer with a /25 requests additional address space, you will have to send this request to the RIPE NCC for approval.

For more information regarding Assignment Window, please visit our website at:

http://www.ripe.net/ripe/docs/ir-policies-procedures.html#toc39

6. Training Courses

The start-up fee paid by new LIRs is used, among other things, to fund the LIR training courses. This is a one-day course (though it might be expanded to more days in the future) that explains the RIPE Database, IP address policies, reverse delegation, the routing registry, PI address space, AS numbers and so on. The training course is only open to LIRs and is given by the RIPE NCC staff. We strongly recommend that new LIRs send one or two of their staff members to this training course. The course is free of charge.

Please see: http://www.ripe.net/training/index.html for information on the location and dates of future LIR training courses, material, policies, objectives, etc.

7. Appendices

7.1 New LIR Application Form

Please fill in this form and return it to <new-lir@ripe.net>, or fill in the online New Local Internet Registry application form located at:

http://www.ripe.net/ripencc/new-mem/newlir-form.html

Information about how to fill out each field in the application form is presented below. Please DO NOT send this entire document, but only the filled out form itself (between the "cut here" marks). You can find an example of a filled out form at the end of this appendix. In addition to the form, we ask a few general questions. Please answer these and send them together with the completed form. The RIPE NCC may also ask for further information about your LIR's plans, customers, routing set-up, etc.

Please send the completed form via e-mail to <new-lir@ripe.net>.

---------- cut here----------
regid:
org:
type:
Community Served:
address:
address:
address:
address:
country:
lir-contact:
lir-contact:
phone:
fax-no:
e-mail:
remark:
lst-localir:
lst-contrib:

bill-addr:
bill-addr: Attn.
bill-addr:
bill-addr:
bill-addr:
bill-mail:
bill-ref:
bill-vatno:
bill-proto:
bill-scheme:
bill-remark:

Questions:
Please remove either YES or NO in the appropriate places.

1. Does the organisation already operate a Local Internet Registry in the RIPE NCC region or is the organisation a member of ARIN or APNIC?

YES NO

1.2. If YES, please give us a short explanation why an additional LIR in the RIPE NCC region has to be opened?

2. Does the organisation already have address space

YES NO

2.1. If YES, please list the address space being used for your organisation's internal network.

2.2. If appropriate, please list the address space being used for customers' network that will be renumbered into your allocation.

2.3. Will the address space be returned to the previous upstream provider within three months after receiving your own allocation?

YES NO

2.4. If NO, please explain why not.

3. What type of organisation is this and what services or products do they provide? Please list the kind of services you offer (like ADSL, Dial-up, Web hosting, VOIP etc.)

4. What are the main reasons for becoming an LIR, rather than requesting address space from the upstream provider?

5. How many transit providers/peers do you have?

NONE ONE TWO MORE

6. Please tell us who your transit providers/peers are/will be?

7. Do you intend to request IP address space from the RIPE NCC?

YES NO

Please note that due to a policy change, from November 2001, we are not able to allocate IPv4 address space to a new LIR unless the new LIR can demonstrate previous usage of a /22 (25% of a /20) or demonstrate an immediate need for a /22 (1024 addresses).

In order to qualify for an IPv4 address allocation, please see section 3.2 (Address space requirements) and provide us with the required information.

---------- cut here ----------

Supporting notes to New-LIR Application Form

· Not published in the LIR List means that this information will not be published on our web site on http://www.ripe.net/ripencc/mem-services/general/indices/data/ for reference of those trying to contact a particular LIR.
· Published in LIR List means that this information will be published on our web site on http://www.ripe.net/ripencc/mem-services/general/indices/data/ for reference of those trying to contact a particular LIR. Optional means that this line is up to you to fill out some extra information.

Description of all the individual fields:

Registry Identifier (RegID)

regid: This string uniquely identifies an LIR. The format is <cc>.<name> where <cc> is the ISO 3166 country code where the LIR is located and <name> is a somewhat descriptive identifier unique within the company name. If an LIR services several countries, please choose the country where the LIR has its main office. Please note that this is only an administrative identifier and is not necessarily associated with your business. The RIPE NCC may change the RegID if it resembles another RegID closely.

If you want to change the RegID after the LIR has been set up, the RIPE NCC will charge an extra set up fee for any administrative overhead.

Mandatory, Single Line Only, Single Attribute per Object, not Published in the LIR List.

Organisation Name

org: A short descriptive name of the organisation running the LIR. It is used in lists and wherever a short description is appropriate.

Mandatory, Single Line Only, Single Attribute per Object, Published in the LIR List.

LIR Type

type: The type field specifies whether this is a PROVIDER LIR that will be assigning addresses to customers of theirs, or if this is an ENTERPRISE that will only be assigning addresses within its organisation. Please fill in either "ENTERPRISE" or "PROVIDER" in this field.

Mandatory, Single Line Only, Single Attribute per Object, Published in the LIR List.

Community Served

community: A short and concise description of the community served by this LIR. For service providers something like "The LIR will serve customers of organisation, an Internet service provider in countries NN AA BB and CC serving mainly type customers." is sufficient. Please also indicate whether you are prepared to serve those not buying any other service from you. Use multiple lines for longer text.

Mandatory, Multi-Line Attribute, Published in the LIR List.

Postal Address

address: The full postal address of the LIR. This should be exactly what is needed to deliver postal mail, including the name of the organisation and the country. Multiple lines are represented by multiple "address" attributes. The postal address must be located within the RIPE region.

Mandatory, Multi-Line Attribute, Published in the LIR List.

Countries Served

country: The countries to which this LIR assigns addresses, or provides services. Please use two-letter ISO 3166 codes. Note that there can be multiple country codes in this field.

Mandatory, Single Line Only, Published in the LIR List.

LIR-contact

LIR-contact: A reference to the RIPE Database object of the persons responsible for the LIR. The preferred form is the full name, followed by the NIC handle* (in brackets). An e-mail address is not sufficient here. Please check if these persons you are entering as LIR-contacts

are registered in the RIPE Database. If not, then register the contacts in the RIPE Database first before you submit the application. We need at least two LIR-contact persons.

* Please see below for more information.

Mandatory, Published in the LIR List.

* PLEASE NOTE: We need the LIR-contacts mentioned in the LIR form registered in the RIPE Database. We would appreciate it if you send in templates for these persons to the database first. (See RIPE Database Reference Manual on creating a new database object.) The RIPE NCC may ask you to clean up old or duplicate person objects that have become invalid.

Telephone Number

phone: The general phone number to be called on LIR matters. If more than one is listed, the preferred ones should be listed first. Format is +<country code> <number> <extension>. Extensions should only be mentioned explicitly if they cannot be dialed directly.

Mandatory, Published in the LIR List.

Telefax Number

fax-no: The general FAX number to be used for LIR matters. If more than one is listed the preferred ones should be listed first. Format is +<country code> <number> <extension>. Extensions should only be mentioned explicitly if they cannot be dialed directly.

Optional, Published in the LIR List.

Electronic Mail Address

e-mail: The general electronic mail address to be used for LIR matters. This has to be in RFC 2822 format. When using a temporary e-mail address, please update it by sending us the new e-mail address as soon as it is operational.

Mandatory, Published in the LIR List.

Remarks

remark: Any useful information regarding organisation.

Optional, Multi-Line Attribute, Published in LIR List.

Local Internet Registries Mailing List

lst-localir: The e-mail addresses to be added to the mailing list of all "Local Internet

Registries". This list is used to make general announcements.
Relevant discussions about LIR issues are held on the lir-wg mailing list (Local IR Working Group). At least one address is required to be subscribed to the LIR mailing list.
It is recommended that LIRs follow the lir-wg mailing list as well, since normally policies are discussed in this forum. We will therefore subscribe the address supplied here to both mailing lists. To change the mailbox subscribed to the local-ir mailing list, please write to <Hostmaster@ripe.net>. To change the mailbox subscribed to the lir-wg or to unsubscribe from this list, please mail <majordomo@ripe.net>.

Mandatory, Not Published.

General Assembly Mailing List

lst-contrib: The addresses to be added to the mailing list of the "RIPE NCC General Assembly". This Assembly consists of all organisations contributing to RIPE NCC funding and discusses formal aspects of RIPE NCC operation such as the budget and charging.

Mandatory, Not Published.

Billing Address

bill-addr: This is the full postal address to send billing-related information. It should contain the name of the responsible person. If no person is mentioned in the billing address, the first LIR-contact of the LIR will be listed as a billing contact.

Mandatory, Multi-Line Attribute, Not Published.

Electronic Billing Address

bill-mail: This is the e-mail address to send billing-related information.

Mandatory, Not Published.

Billing Reference

bill-ref: This is some text that will be included in any bill for reference by the customer, e.g. RIPE NCC LIR.

Optional, Single Line Only, Single Attribute per Object, Not Published.

VAT Number

bill-vatno: This is the VAT number that is required for billing LIRs inside the European Union without Value Added Tax. If we do not have this number, Dutch VAT will be billed. If your LIR has no billing address in the EU, please write outside EU.

Optional, Single Line Only, Single Attribute per Object, Not Published.

Billing Preference

bill-proto: The RIPE NCC sends all invoices out by MAIL and E-MAIL. If you state E-MAIL ASCII in this field, the RIPE NCC will additionally e-mail the invoice to the bill-mail address in ASCII format.

Optional, Single Line Only, Single Attribute per Object, Not Published.

Billing Scheme

bill-scheme: This is the applicable billing scheme. YEARLY is the normal billing scheme. HALF YEARLY and QUARTERLY are possible by special prior arrangements, but an extra fee is charged. The string LATE after the scheme indicates that we agreed that invoices due in December can be paid in January. See the billing procedure document "RIPE NCC Billing Procedure and Fee Schedule" for details of applicable charges, etc.

Mandatory, Single Line Only, Single Attribute per Object, Not Published.

Billing Remark

bill-remark: Any useful information regarding your organisation’s billing matters.

Optional, Multi-Line Attribute, Not Published.

7.2 Sample Form

regid: nn.example

org: E.X.Ample Net

type: PROVIDER

community: The LIR will serve customers of E.X. Ample Networking Ltd., an internet service provider in NN AB serving mainly x-type customers. We will also serve those not buying other services from us.

address: E.X. Ample Networking Ltd.
address: LIR Street 10
address: NN-1822 Internet City
address: Northern Nowhere

country: NN AB

lir-contact : Ad Ministrator (AM999-RIPE)

lir-contact : Joe Technical (JT1234)

phone: +12 345 6789

fax-no: +12 345 9876

e-mail: LIR@anet.nn

remark:

lst-localir: LIR@anet.nn

lst-contrib: ad.ministrator@anet.nn

bill-addr: E.X. Ample Networking Ltd.
bill-addr: Attn. Ad Ministrator
bill-addr: LIR Street 10
bill-addr: NN-1822 Internet City
bill-addr: Northern Nowhere

bill-mail: ad.ministrator@anet.nn

bill-ref: RIPE NCC LIR

bill-vatno: NN-9876 5432 1 00
bill-proto: E-MAIL ASCII

bill-categ: SMALL

bill-scheme: YEARLY

bill-remark:

Questions:

1. Does the organisation already operate a Local Internet Registry in the RIPE NCC region or is the organisation a member of ARIN or APNIC?

NO

1.2. If YES, please give us a short explanation why an additional LIR in the RIPE NCC region has to be opened?

2. Does the organisation already have address space?

YES

2.1 If YES, please list the address space being used for your organisation's internal network.

193.0.0/19 allocated to sn.ample, out of this 193.0.10/23 is being used for the Northern Nowhere network.

2.2. If appropriate, please list the address space being used for customers' network that will be renumbered into your allocation.

No customers to renumber

2.3. Will the address space be returned to the previous upstream provider within three months after receiving your own allocation?

YES

2.4. If NO, please explain why not.

3. What type of organisation is this and what services or products do they provide? Please list the kind of services you offer (like ADSL, Dial-up, Web hosting, VOIP etc.)

We are a new service provider in xx. We offer Dial-up, webhosting and leased line connectivity to mainly business customers.

4. What are the main reasons for becoming an LIR, rather than requesting address space from the upstream provider?

We want to use BGP and connect to 2 upstream providers.

5. How many transit providers/peers do you have?

TWO

6. Please tell us who your transit providers/peers are/will be?

AS1234 and AS5678

7. Do you intend to request IP address space from the RIPE NCC?

YES

Please note that due to a policy change, from November 2001, we are not able to allocate IPv4 address space to a new LIR unless the new LIR can demonstrate previous usage of a /22 (25% of a /20) or demonstrate an immediate need for a /22 (1024 addresses).

In order to qualify for an IPv4 address allocation, please see section 3.2 (Address space requirements) and provide us with the required information.

Date Equipment Ordered	Planned Delivery Date	Planned Operational Date	Type of Equipment	Number of Hosts	Location
Jan 2002	Feb 2002	Mar 2002	Backbone routers	254	Paris
Jan 2002	Mar 2002	Apr 2002	Network Access Servers	720	London
Jan 2002	Mar 2002	Apr 2002	Network Access Servers	480	Berlin
Jan 2002	Jun 2002	Jul 2002	CMTS	254	Madrid
Jan 2002	Mar 2002	Apr 2002	Access Routers for leased lines	1024	Lisbon
Jan 2002	Mar 2002	Apr 2002	Network Access Servers	480	Rome

The deployment plan should be in the same format as the table above and provide the same information. This information will be handled in strict confidence and may also be of aid to your first address space request.