Local Internet Registry In-Person Course

Activity Booklet

April 2026

Notes

Your database objects

For your convenience we have already created some objects in the RIPE TEST Database. You can use these objects during the practical exercises today. During the exercises, you can modify these or use them to update or create other objects.

We have created a maintainer, person, organisation and IPv4/IPv6 allocation objects for you.

You will be assigned a number at the start of the training and this number will be used for the objects. As an example, if your number is **3**, your person object will be TP**3**-TEST.

On the next pages you will find the list of all your objects that are in the TEST Database.

Associating Your SSO with Your Maintainer

All your objects are protected by your own maintainer object. In order to modify any of them, you will need the maintainer to be associated with your Single Sign-On (SSO) account, which is the email address you use to create your RIPE NCC Access account.

Follow these steps:

1. Go to the TEST Database https://apps-test.db.ripe.net/
2. In the search bar, type your maintainer. For example, if your number is 3, your maintainer will be CM**3**-MNT. Click **Search**. The results will display your maintainer data.
3. Click **Update Object** to edit your maintainer**.**
4. A pop-up called Authentication will appear. Click **Submit** to associate your Access account with this maintainer.
5. Your SSO email address will now appear in the 'auth:' line of the maintainer object.

All pre-created objects

Fill in all ⬭ placeholders with your assigned number.

mntner:	CM ⬭ - MNT
descr:	RIPE NCC training courses - Participant ⬭ Maintainer
admin-c:	TP ⬭ - TEST
mnt-by:	CM ⬭ -MNT
auth:	SSO email@example.com
upd-to:	participant@example.com
notify:	participant@example.com
created:	2002-04-08T12:43:46Z
last-modified:	2022-06-01T13:15:13Z
source:	TEST

person:	Training Course Participant
remarks:	RIPE NCC training courses - Participant ⬭ Person
address:	1016 AB Amsterdam
phone:	+312053544444
e-mail:	attendee@example.org
nic-hdl:	TP ⬭-TEST
mnt-by:	CM ⬭-MNT
created:	2002-04-08T12:43:46Z
last-modified:	2022-06-01T13:15:13Z
source:	TEST

organisation:	ORG-TCP⬭ -TEST
org-name:	RIPE NCC training courses - Participant ⬭ Organisation
org-type:	LIR
address:	1016 AB Amsterdam
e-mail:	training@example.com
admin-c:	TP ⬭ -TEST
tech-c:	TP ⬭ -TEST
mnt-ref:	TEST-NCC-HM-MNT
mnt-by:	TEST-NCC-HM-MNT
created:	2002-04-08T12:43:46Z
last-modified:	2022-06-01T13:15:13Z
source:	TEST

The following allocations are available for you to use in the exercise:

inetnum:	192.⬭ .0.0-192.⬭ .3.255
netname:	NL-RIPENCC-TCP⬭-20140626
org:	ORG-TCP -TEST
descr:	RIPE NCC training courses - Participant ⬭ Allocation
country:	EU
admin-c:	TP ⬭ -TEST
tech-c:	TP ⬭ -TEST
status:	ALLOCATED PA
mnt-by:	TEST-NCC-HM-MNT
mnt-lower:	CM ⬭-MNT
mnt-routes:	CM ⬭-MNT
created:	2002-04-08T12:43:46Z
last-modified:	2022-06-01T13:15:13Z
source:	TEST

inet6num:	2001:ff⬭ ::/32
netname:	NL-RIPENCC-TCP⬭ -20140626
org:	ORG-TCP⬭ -TEST
descr:	RIPE NCC training courses - Participant⬭ Allocation
country:	EU
admin-c:	TP ⬭-TEST
tech-c:	TP ⬭-TEST
status:	ALLOCATED-BY-RIR
mnt-by:	TEST-NCC-HM-MNT
mnt-lower:	CM ⬭-MNT
mnt-routes:	CM ⬭-MNT
created:	2002-04-08T12:43:46Z
last-modified:	2022-06-01T13:15:13Z
source:	TEST

NOTE: If your number on the list is between 1 and 9, please write the number in the IPv6 prefix with a leading zero.

Example: “1” == “01” == 2001:ff01::/32

Activity 1: Querying an object template in the RIPE Database

Goal:
Find out what information can be registered in the RIPE Database

Scenario:
You want the users of your network to receive tailored user experiences from Internet services. This requires geolocation to be set up. You want to know if you can register the geolocation in the RIPE Database, so you query the object templates for inetnum and inet6num objects.

Task:

1. Open the RIPE Test Database https://apps-test.db.ripe.net/
2. In the search bar, run the queries: **-t inetnum** and **-t inet6num**
3. Answer the following:

   3.1. Can you register geolocation in the RIPE Database? _____

   3.2. Is the geoloc: attribute mandatory? _____

   3.3. How many sets of coordinates can you register? _____

Activity 2: Querying the RIPE Database

Goal:
Use the RIPE Database to find information about an IP address

Scenario:
You are receiving strange packets which seem like an attack on your network. You want to know who operates the network so you can contact them to resolve the issue. You decide to **query the RIPE Database** using the source IP from these packets.

Task:

1. Open the RIPE Test Database https://apps-test.db.ripe.net/
2. In the search bar, run the query using the source IP address: **193.0.29.71**
3. Answer the following:

   3.1. Who is the **technical contact** (tech-c) — the person responsible for the day-to-day technical management of the object?

   _____

   3.2. Who is the **administrative contact** (admin-c) — the person with organisational responsibility, who may need to be formally notified?

   _____

   3.3. Which organisation is actually responsible for this assignment? (Look up the parent object using **-L flag**)

   _____

Activity 3: Making assignments

Goal:
Calculate how much address space to assign to an End User

Scenario:
You work for the LIR: ORG-TCP⬭-TEST. You have a /22 IPv4 allocation and a /32 IPv6 allocation. A new customer (End User) wants to use your services and needs address space from your registry. Refer to the email on the next page for more information:

Task:

1. Collect information about the End User's network by reading the email. Do you have all the information you need?

2. Calculate how much IPv4 and IPv6 address space you will assign to the End User

IPv4	
IPv6	

3. How would you internally document an assignment like this one?

Additional information:

- IPv4 assignment size: limited to the amount of IPv4 space you have
- IPv6 assignment size:
    - no approval required
    - /64 = 1 subnet
    - /56 = 256 subnets
    - /48 = 65K subnets

TIP: Use the IPv4 and IPv6 CIDR charts!

End User's Email:

From: marc@laika.example.com
To: contact@lir.yourplace.com

Dear Sir / Madam,
Our company is interested in moving from an IPv4-only platform to a dual-stacked one, IPv4 and IPv6. It is important for us to be reachable from anywhere in the world.
We are a start-up Web hosting company (moving on from the web design business). We would like to get address space from you and then we would hand back the address space we currently have to our soon to be ex-ISP upstream provider TheOtherNet. We currently use the prefix 195.20.42.0/26.`

Our network consists of three subnets.

1. We currently have 150 shared webhosting clients. We host 10 clients per IP.
2. Additionally we also have 7 managed web hosting clients that need one IP address each.
3. Our goal is to double the amount of clients every year.
4. For our supporting infrastructure we have 10 servers, which need their own addresses. This subnet will not grow.

We would be interested in a two-year contract with you. I hope to hear from you soon.

Regards,
Marc Bromski
MB54321-TEST
Laika BV, Amsterdam
http://www.laika.example.com

Activity 4: Registering the Assignments

Goal:
Register the assignment in the TEST RIPE Database

Scenario:
You want to register the assignments from the previous exercise.

Task 1: Create the inetnum object

1. Log in to your Access account (if not logged in)
2. Go to the TEST RIPE Database: https://apps-test.db.ripe.net/db-web-ui/
3. Click on "Create an Object" on the left menu
4. Select "inetnum" as the object type from the drop-down list
5. Fill in your maintainer: CM⬭ -MNT
6. Fill in the **inetnum object** template with:

   6.1. An IP range from your IPv4 allocation
   192.⬭.2.0 - 192.⬭.2.111

   6.2. The unique netname to identify the assignment

   _____

   6.3. The country code of the end user's country

   _____

   6.4. Use the customer person object as the admin-c

   _____

   6.5. Use your person object as the tech-c

   _____

   6.6. Use the status _____

7. Click 'submit' once you are ready. Was the creation of the inetnum object successful?

Task 2: Create the inet6num object

1. Log in to your Access account (if not logged in)
2. Go to the TEST RIPE Database: https://apps-test.db.ripe.net/db-web-ui/
3. Select “inet6num” as the object type from the drop-down list
4. Fill in your maintainer: CM⬭ -MNT
5. Fill in the **inet6num object** template with:

    5.1. An IPv6 prefix from your IPv6 allocation
    2001:ff⬭:1234::/48

    5.2. The unique netname to identify the assignment

    _____

    5.3. The country code of the end user’s country

    _____

    5.4. Use the customer person object as the admin-c

    _____

    5.5. Use your person object as the tech-c

    _____

    5.6. Use the status _____

6. Click ‘submit’ once you are ready. Was the creation of the inet6num object successful?