



RIPE NCC

RIPE NETWORK COORDINATION CENTRE

Welcome to the RIPE NCC

Webinar

RIPE NCC Learning & Development



**This session is
being recorded**



Quiz Question

1



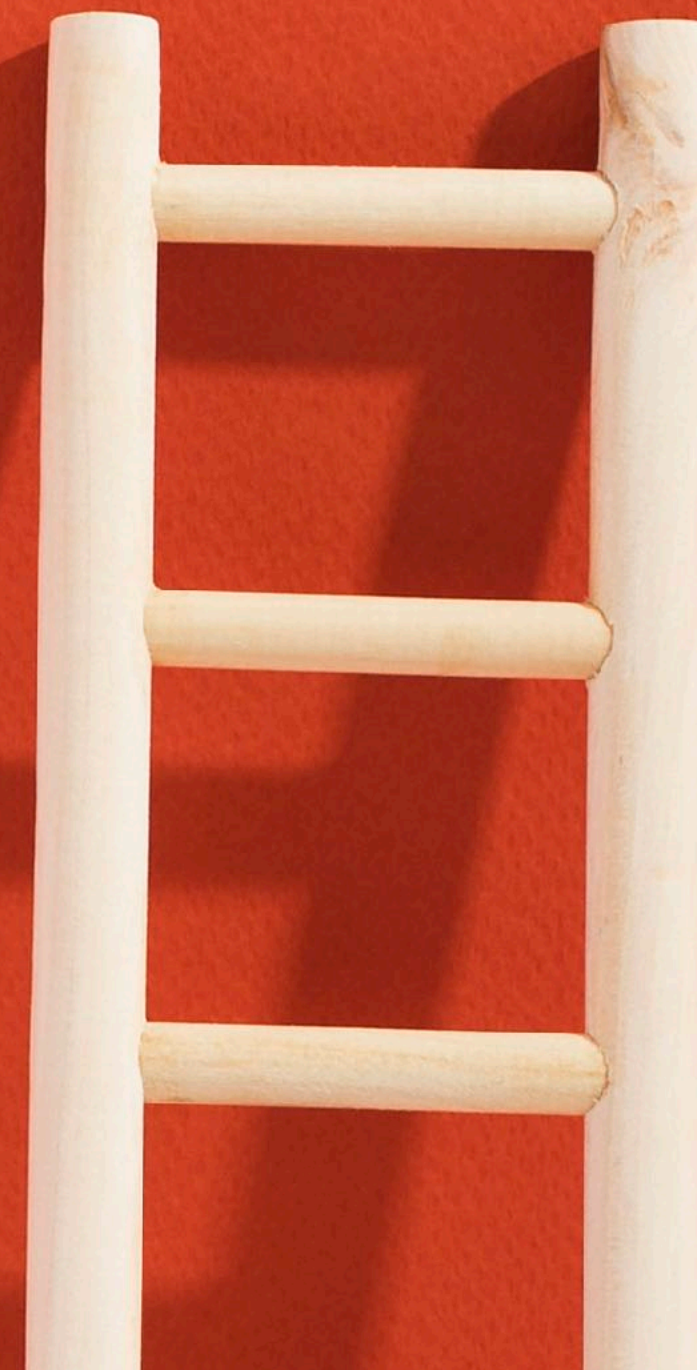
Who is this webinar for?

- New LIR contact for an existing LIR
- New LIR contact for a new LIR
- Existing LIR contact for LIRs looking to refresh their knowledge
- Someone interested to join RIPE NCC as a member
- Someone curious about what we do at RIPE NCC



By the end of today's webinar, you will

- **Define your key responsibilities** as an LIR
- **Identify where to go** for what you need as an LIR





Home



Dashboard



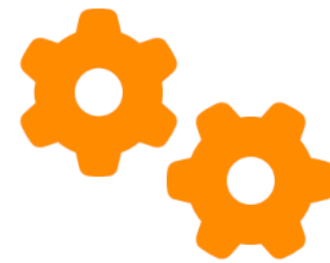
Contact Trainer



Site administration



Legal



LIR Fundamentals

NEW!

Are you thinking of joining us as a member? Do you have questions about your role as a Local Internet Registry?

Learn about the roles and responsibilities of Internet Registries, and how you can shape the Internet as a member of the community.



IPv6 Fundamentals

Get started with IPv6. You will learn how IPv6 addresses work, how to subnet, best-practices and IPv6-related RFCs among other topics.

Gets you ready for the IPv6 Fundamentals - Analyst exam



IPv6 Security

Keep your IPv6 network secure. Learn to design a high-level strategy to protect your IPv6 infrastructure against common threats.

Gets you ready for the IPv6 Security Expert exam



BGP Security

BGP is vulnerable. Analyse the threats to BGP and learn about the recommended security measures to protect your network against accidental and malicious misconfigurations.

Gets you ready for the BGP Security - Associate exam



RIPE Database

Learn how the RIPE Database works. Practise querying, creating and updating objects. Understand database best-practices and more.

Gets you ready for the RIPE Database Associate exam



Internet Governance

Learn how the Internet is governed and how you can be part of the process!

This course will prepare you to participate in Internet governance processes and events and help bring to life your vision of what the Internet should be.

Agenda



- **Regional Internet Registries (RIR):**
 - What is the relationship between RIPE and the RIPE NCC?
 - What are RIRs exactly and what do they do?
- **Local Internet Registries (LIR):**
 - How do I get what I need from the RIPE NCC?





ARIN

RIPE NCC

APNIC

AFRINIC

LACNIC



What do RIRs across the world share?



RIRs are:

- Not-for-profit**
- Funded by membership fees**
- Operating based on policies decided by their Internet community**
- Neutral, Impartial, Open and Transparent**



Quiz Question

2



RIPE vs. RIPE NCC

Is there a difference?



RIPE

- Started in 1989
- Is an open community
- Develops policies



RIPE

- Started in 1989
- Is an open community
- Develops policies



RIPE NCC

- Started in 1992
- Requires membership
- Has an office with its own staff
- Distributes IP addresses and ASNs
- Implements policies



RIPE

- Started in 1989
- Is an open community
- Develops policies



Board

- Elected by RIPE NCC members
- Approves RIPE NCC activity plans and budgets
- Hires staff to run the RIPE NCC



RIPE NCC

- Started in 1992
- Requires membership
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What do we do *exactly*?



RIPE NCC



Authority
on
Internet Number
Resources

Secretariat
For the RIPE
Community

Source of
Information and
Knowledge

RIPE NCC

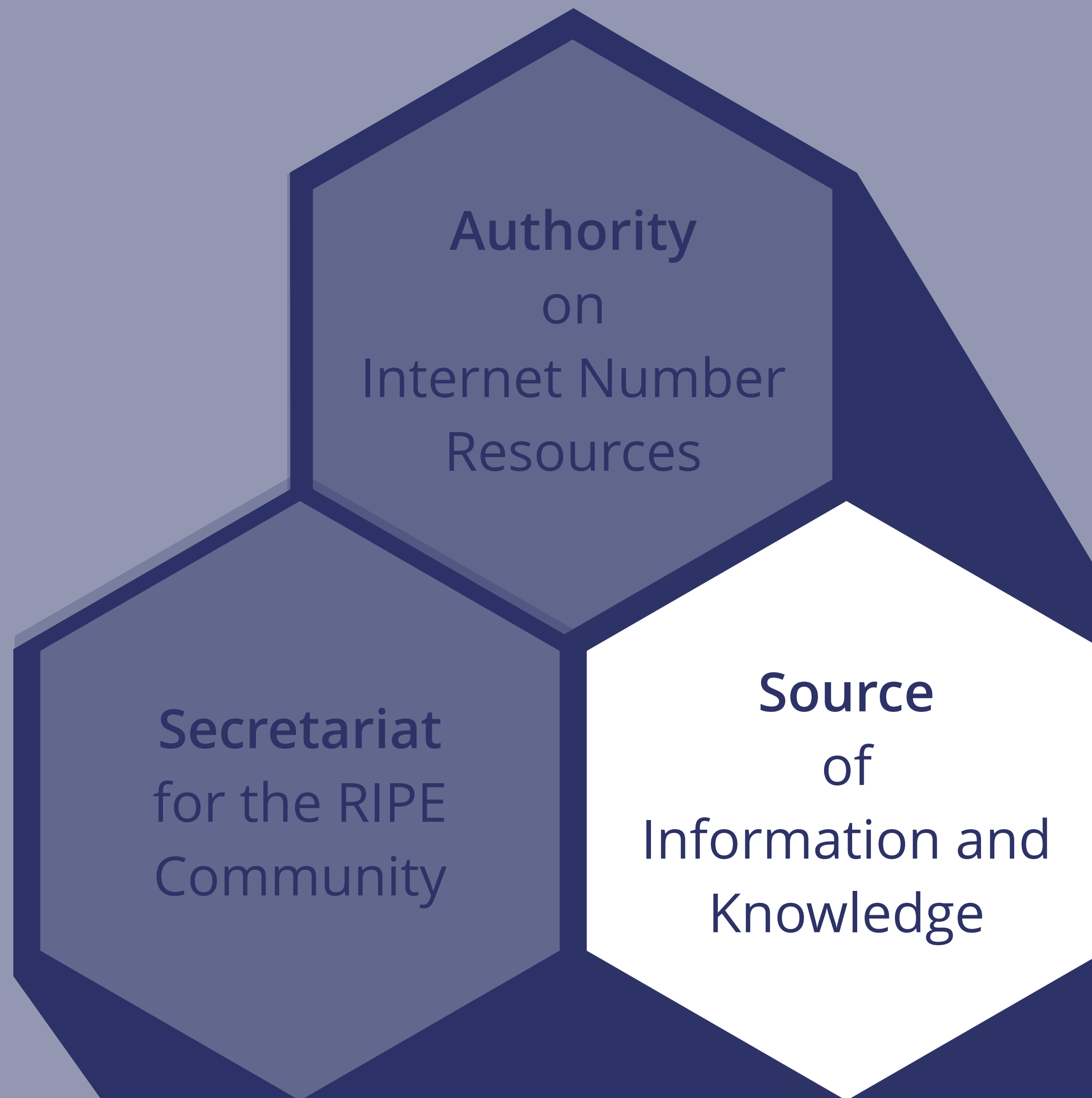


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RIPE NCC



Quiz Question


3





- ☒ **RIPE NCC Access**
- ☐ **Become a member**
- ☐ **LIR Portal**
- ☐ **RIPE Database**



- 
- A donut chart on the left side of the slide. The top segment is orange and labeled "Get Started". The remaining three segments are light grey.
- ☒ **RIPE NCC Access**
 - ☒ **Become a member**
 - ☐ **LIR Portal**
 - ☐ **RIPE Database**



Become a member: Benefits

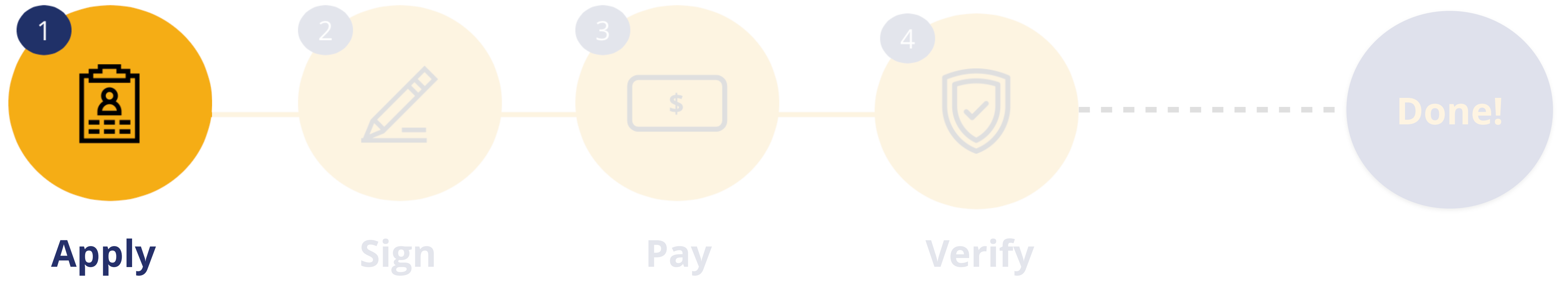


Get
Started

- You get to request Internet resources directly from the RIPE NCC
- You have a say in the RIPE NCC activity plan and budget
- You can be a part of the RIPE NCC Executive Board
- You get access to extensive training opportunities at no additional cost
- New members get two (2) free tickets to the RIPE Meeting

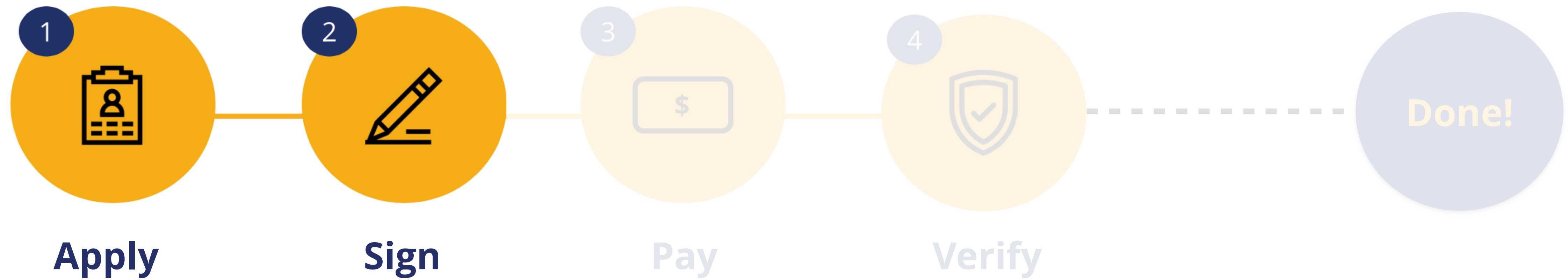


Become a member: How?



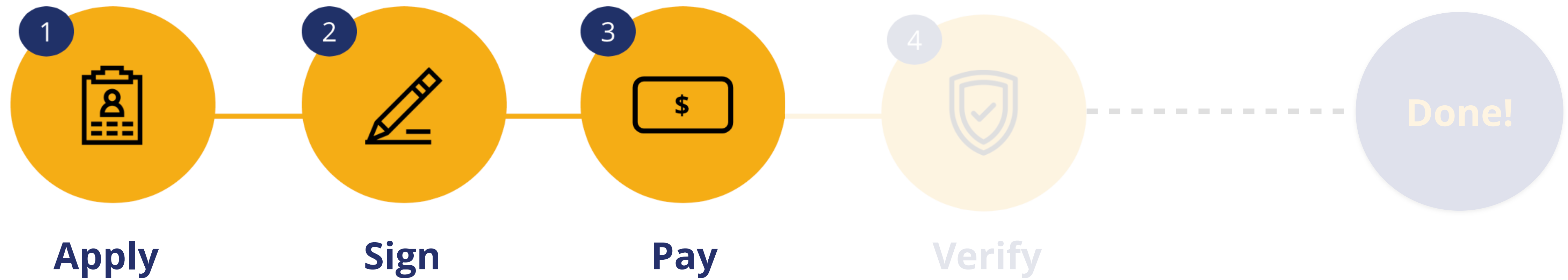


Becoming a Member



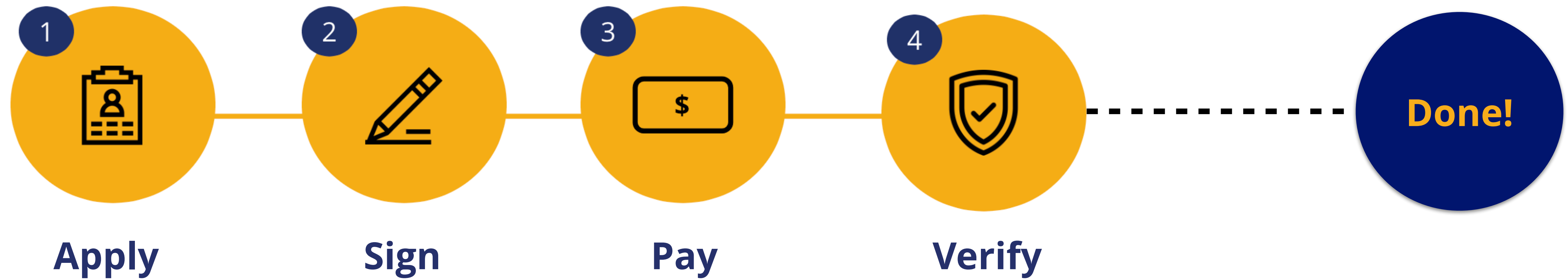


Becoming a Member





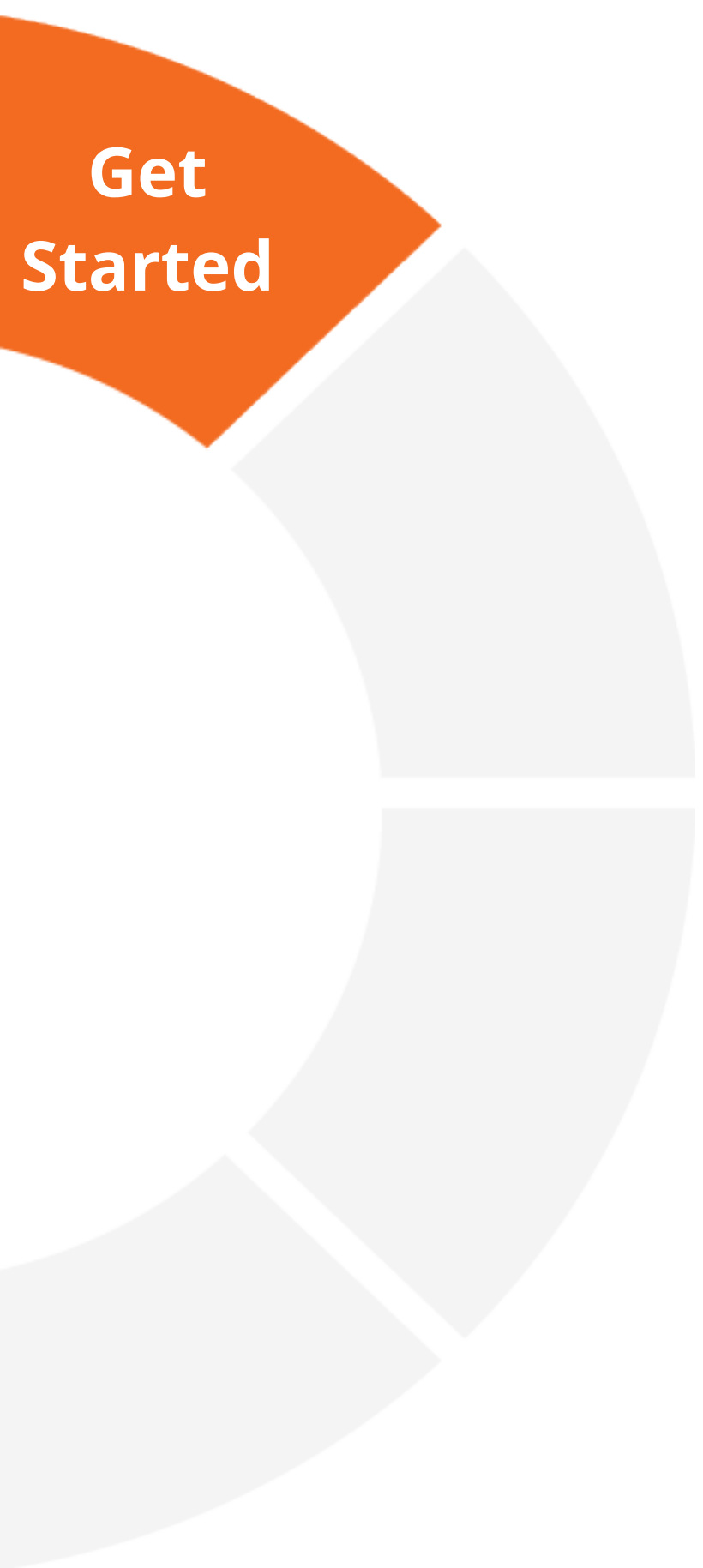
Becoming a Member



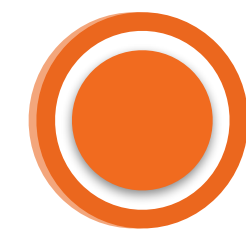


- ☒ **RIPE NCC Access**
- ☒ **Become a member**
- ☒ **LIR Portal**
- ☐ **RIPE Database**





- **RIPE NCC Access**
- **Become a member**
- **LIR Portal**
- **RIPE Database**



RIPE Database: What is it for?



Get
Started

To keep contact information. Network operators know whom to contact should they encounter problems with the IP addresses and ASNs.

To register IP addresses and AS Numbers. This ensures that addresses are used only by one network.

To publish routing policies. Routing is made more secure.

To provide reverse delegation. This maps an IP address to a domain.



RIPE Database: What can you find there?

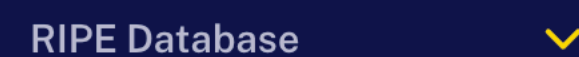
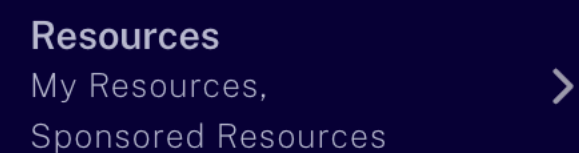
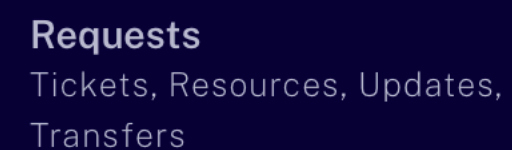
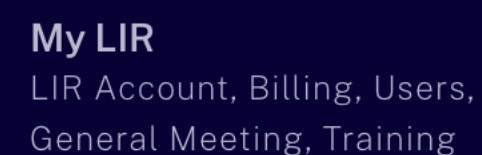


IP address ranges and ASNs

Contact details for network operators

Reverse delegation (rDNS) setup

Routing policies



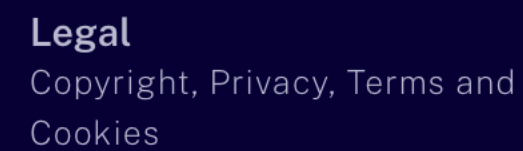
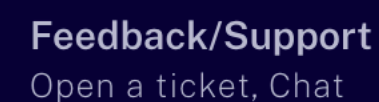
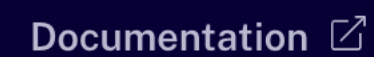
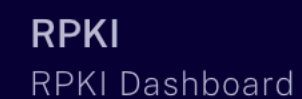
Query Database

Full Text Search

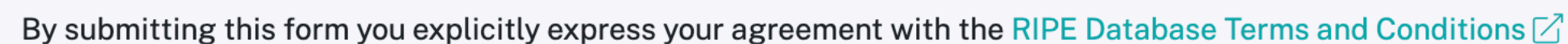
Syncupdates

Create an Object

API Keys



Enter a search term



You are editing **Reseaux IP Europeens Net...**

RIPE Database Query

Querying the RIPE Database

You can query the RIPE Database via the web interface, the RESTful API or a command line tool. Learn more about each option by clicking the link below.

[Read documentation](#) 

RESTful API

The RESTful API can only process one object at a time. If you want to process several objects simultaneously, you need to write a script on the client side to handle the list of objects and feed them.

[Read more about RESTful API](#)

Test Database

You can use this environment to learn and experiment with the RIPE Database. It uses a TEST source. Important: All changes are reverted every day at night.

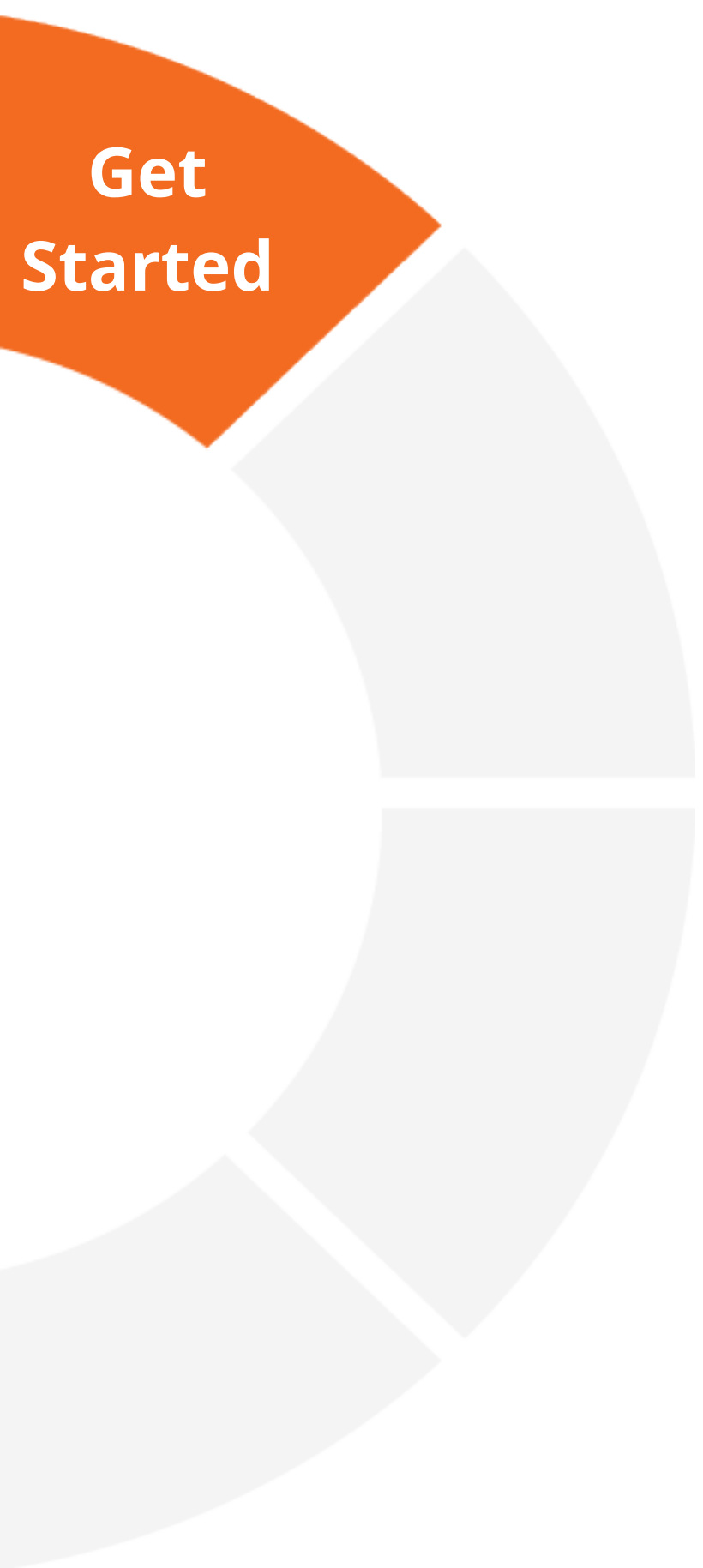
[Take me to Test Database](#)





Quiz Question

4



- **RIPE NCC Access**
- **Become a member**
- **LIR Portal**
- **RIPE Database**



● **How are resources distributed across the world?**

● **What are allocations and assignments?**

● **What are PA and PI?**

● **What resources can I get?**

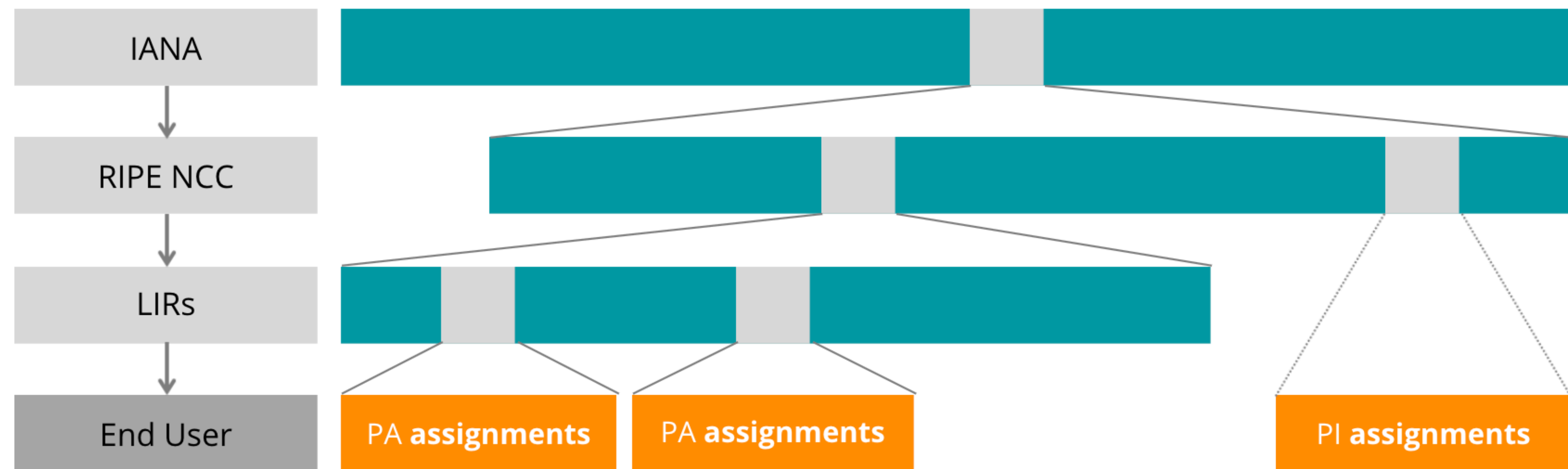
● **How do I get these resources?**

● **What do I do after I get my resources?**

Get
Resources



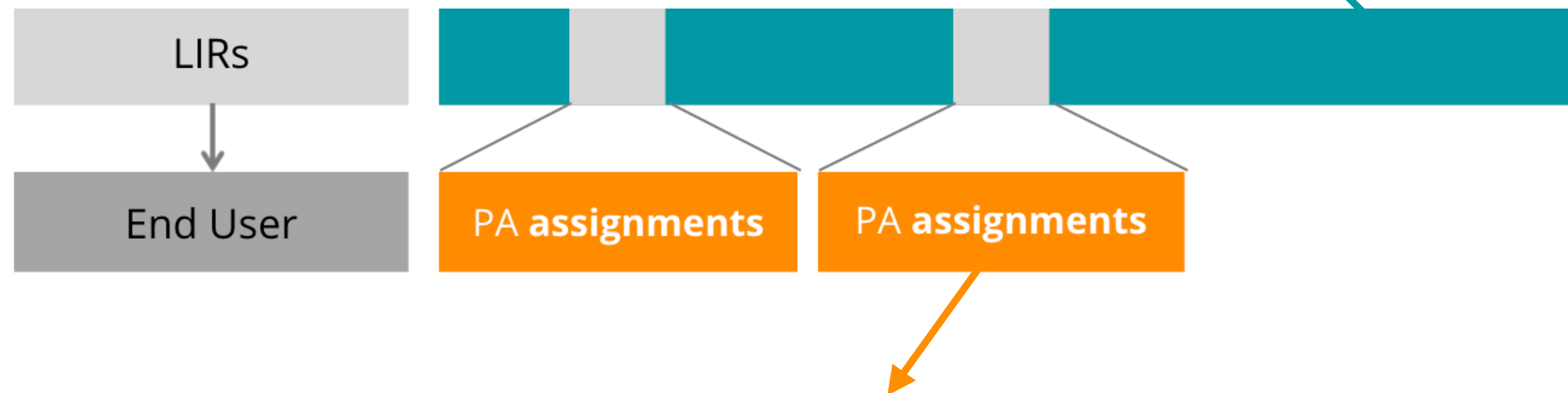
How are resources distributed across the world?





What are allocations and assignments?

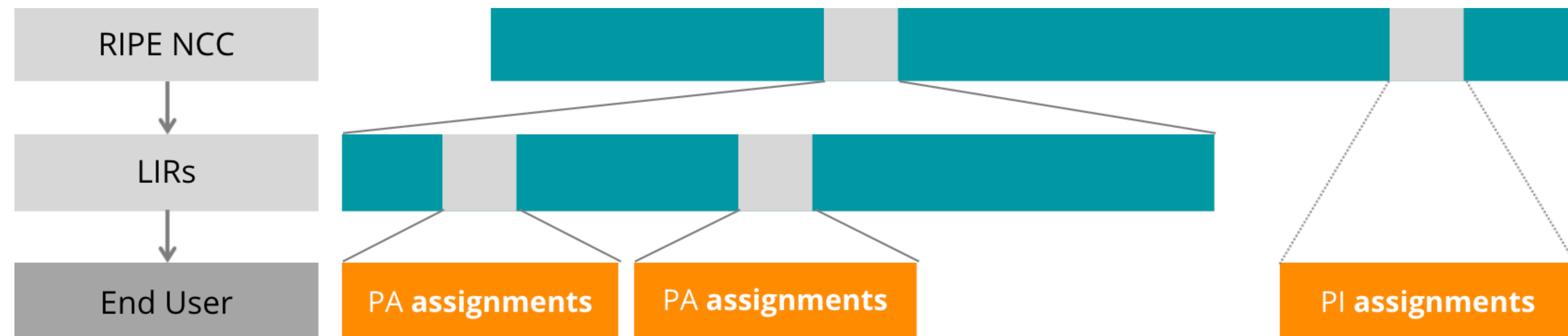
An allocation is a reserved block of address space.
LIRs further distribute smaller blocks from the allocation to the End Users.



An assignment is a block of addresses from an allocation that has been given a purpose or use in a network.



What are PA and PI?



Provider-Aggregatable

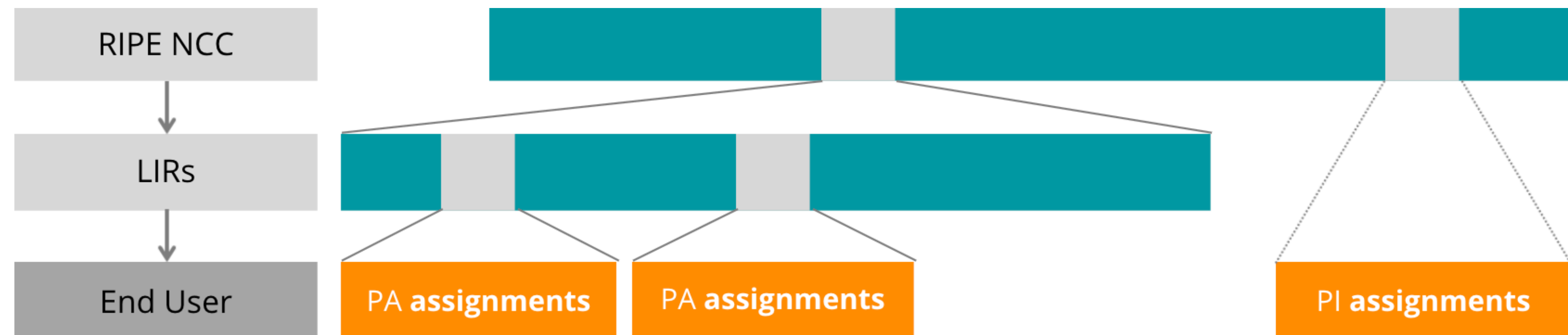
addresses are assigned from an LIR's allocation.

If an End User holding a PA assignment wants to change providers, they will need to return the PA assignment back to the LIR. They cannot bring the addresses with them.

Get
Resources



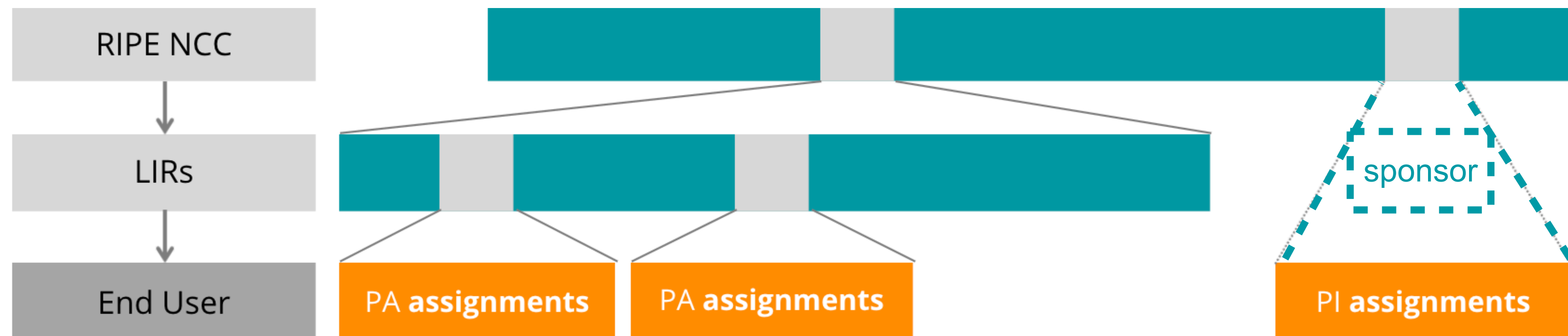
What are PA and PI?



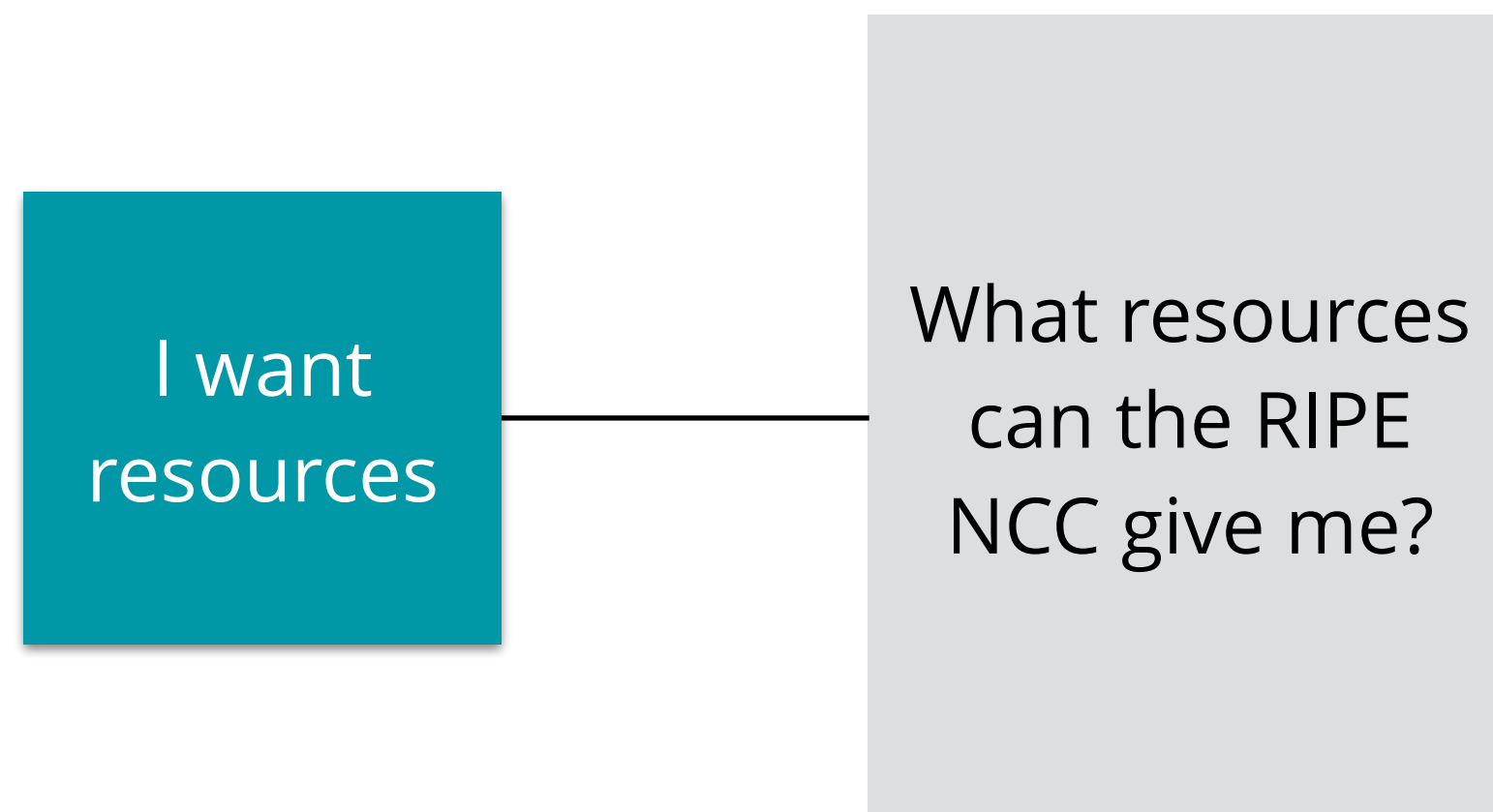
Provider-Independent
address space comes directly from the RIPE NCC and not from the LIR's PA allocations. When an End User holding PI assignments wants to change providers, they can bring these addresses with them to a different provider.

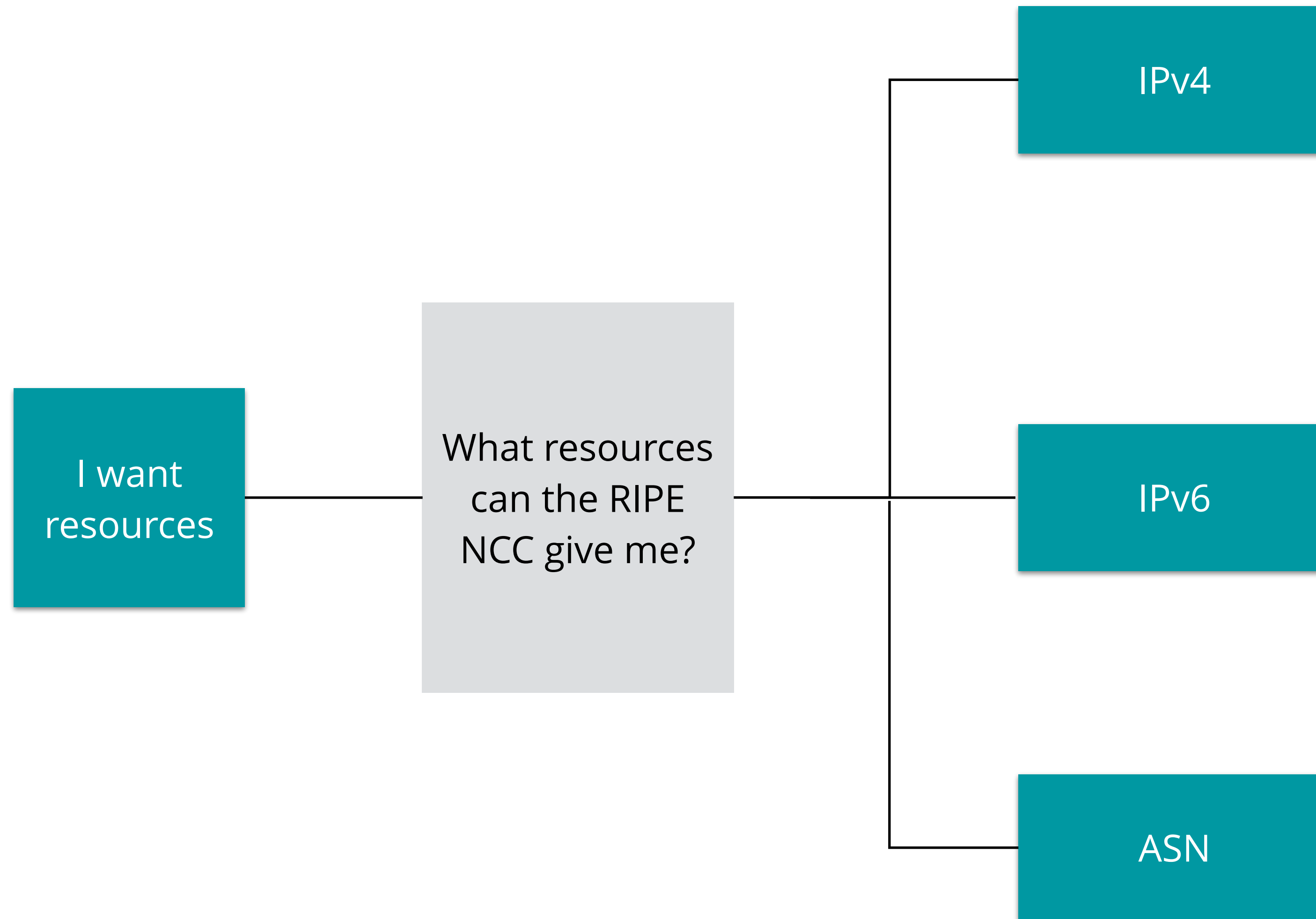


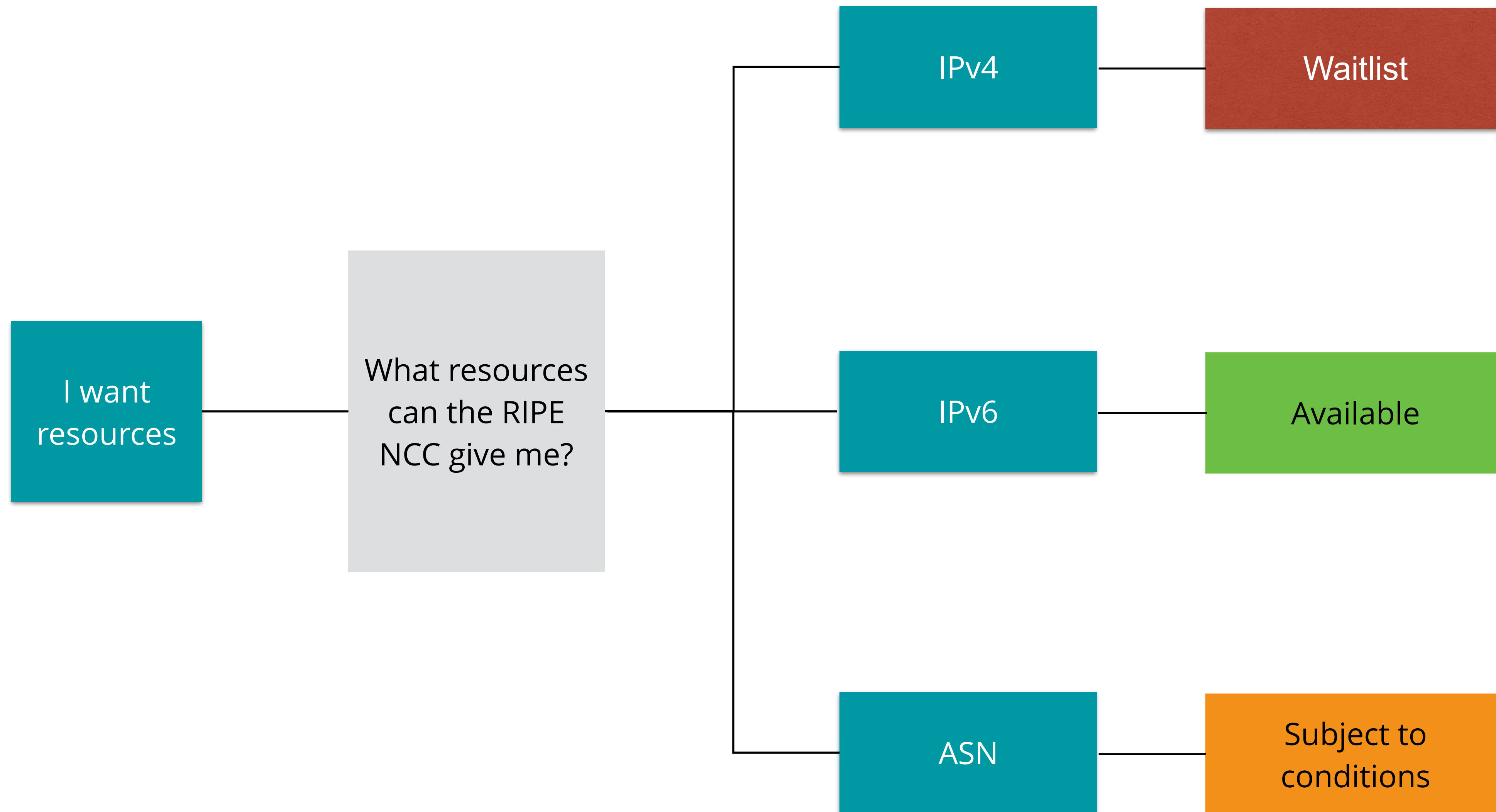
What are PA and PI?

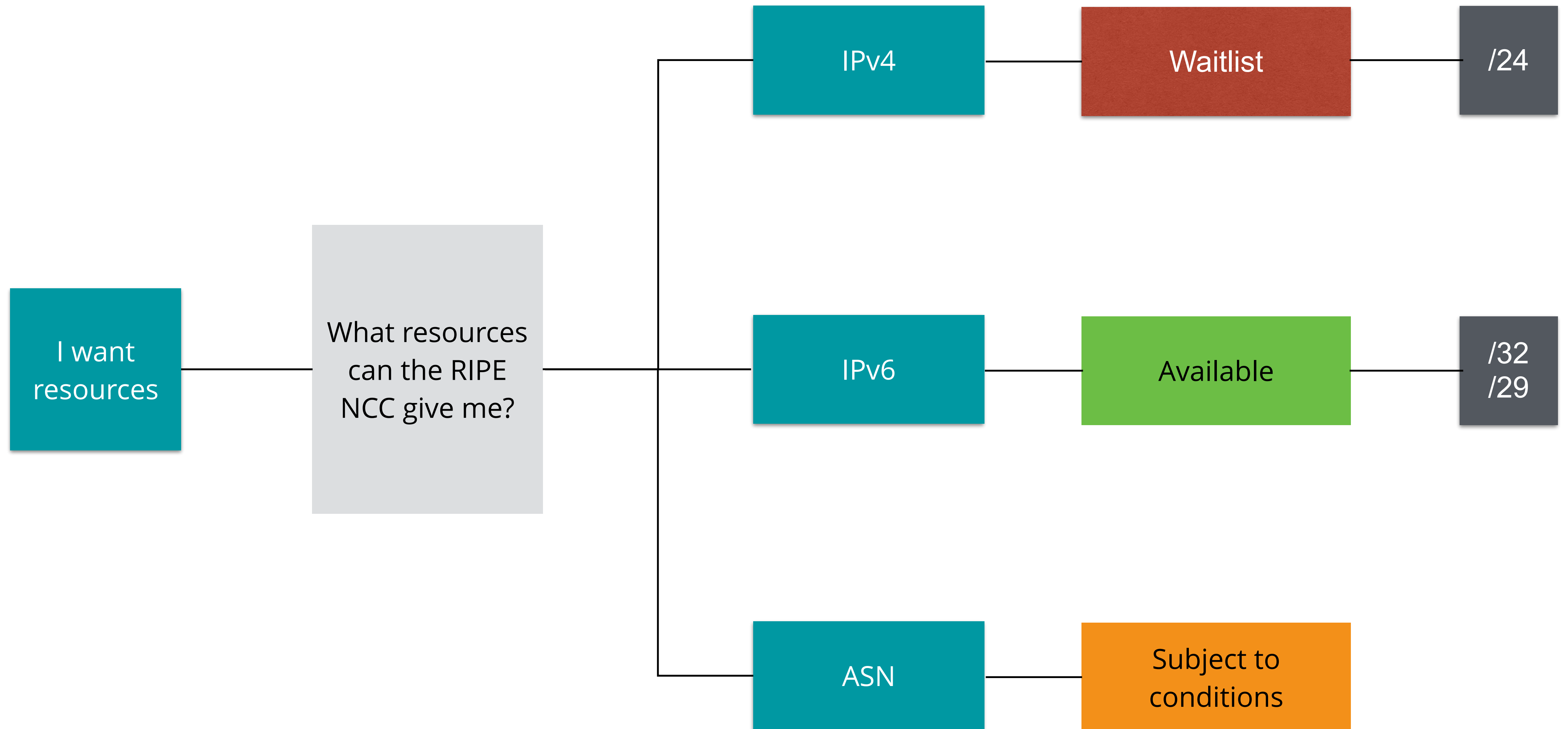


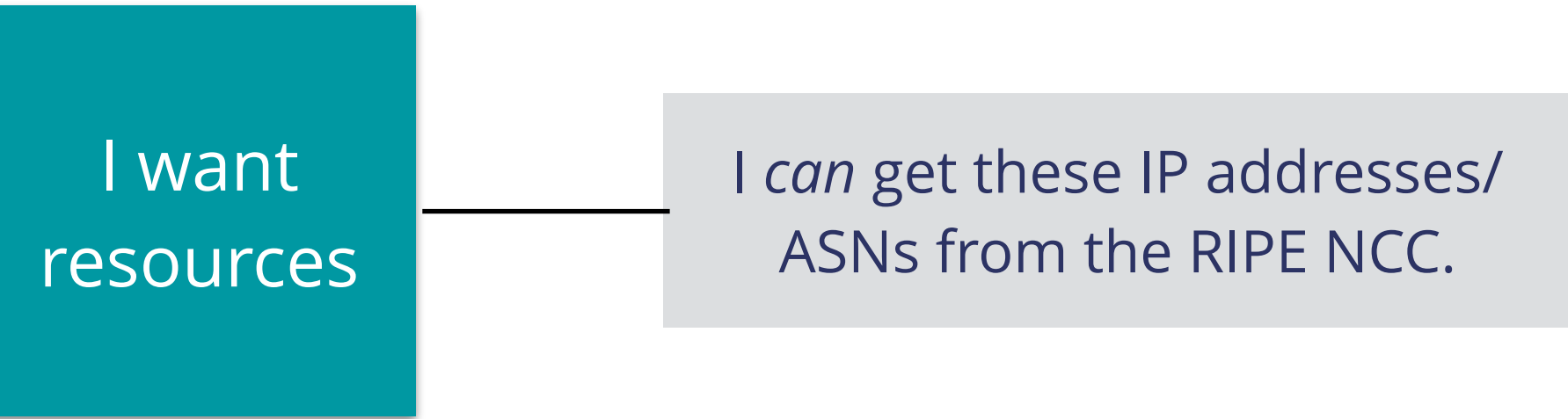
What resources can I get?

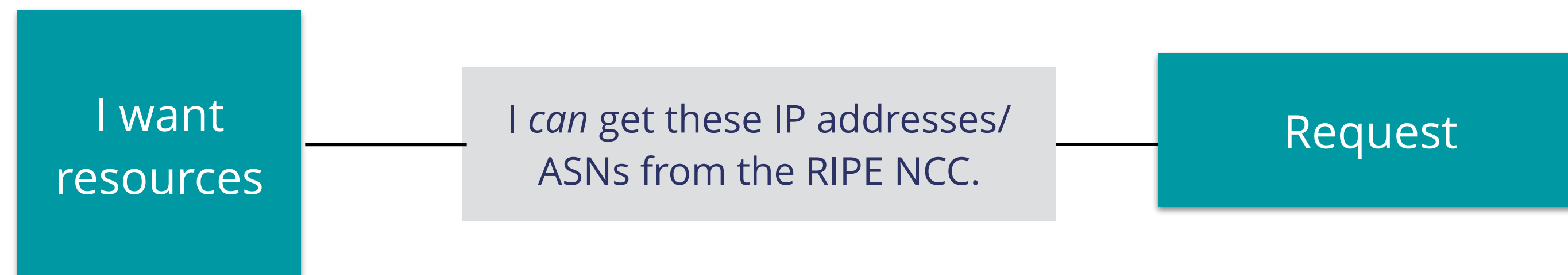


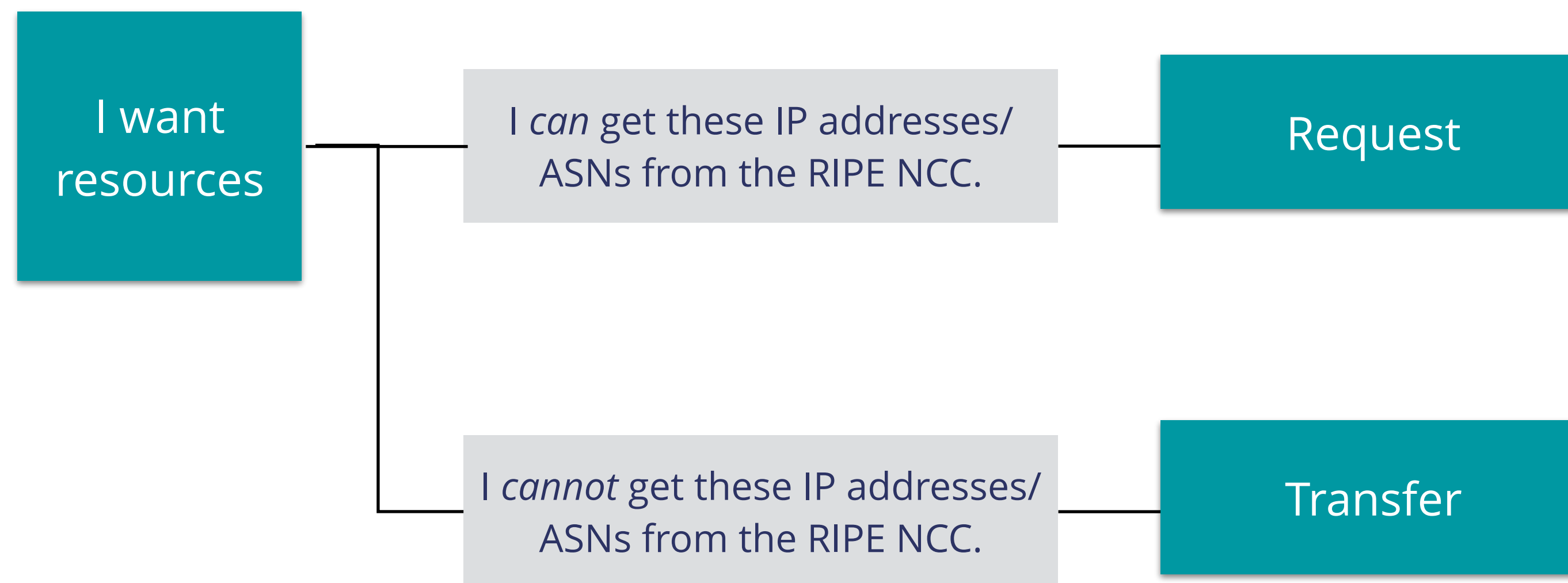


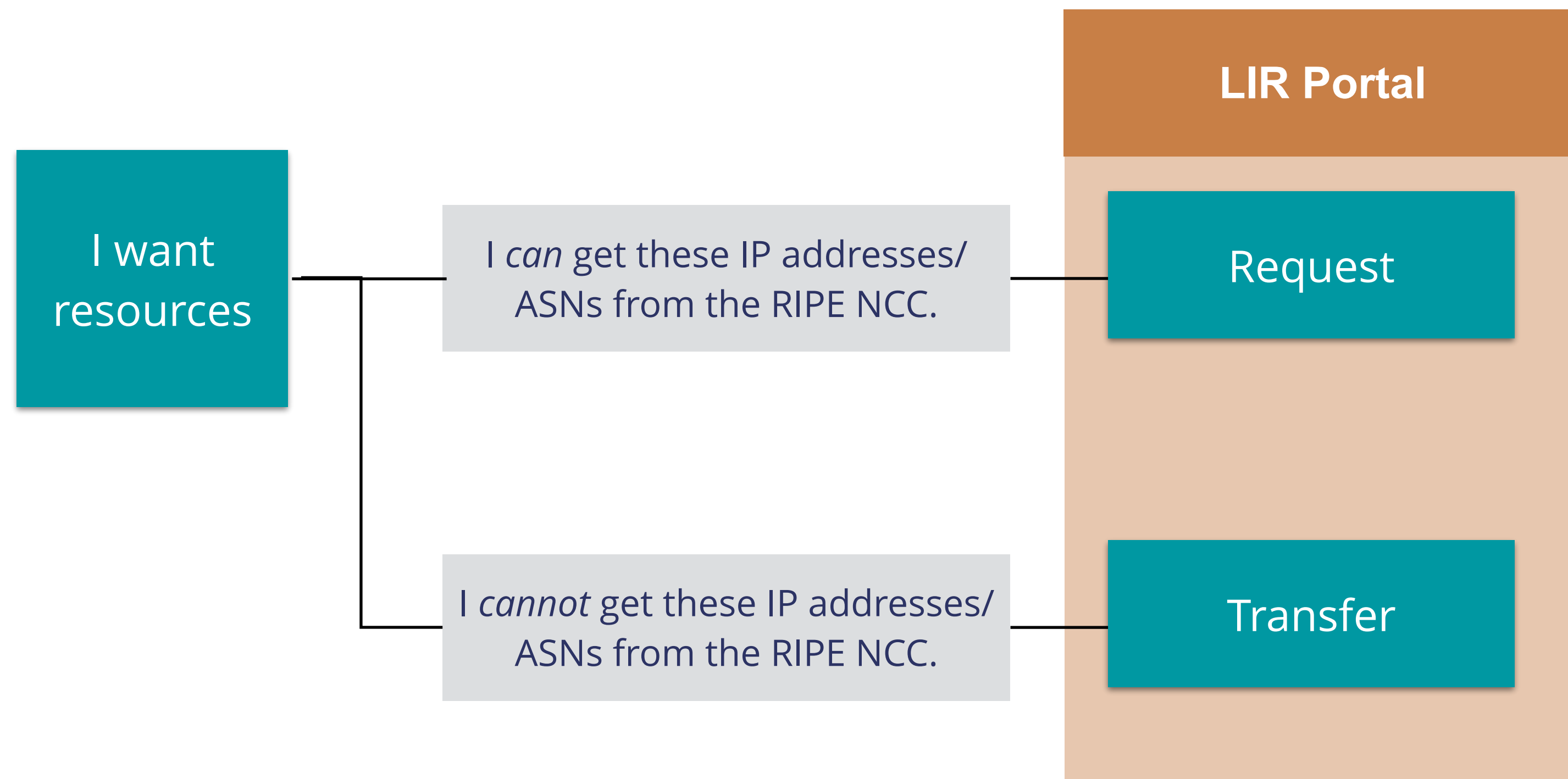


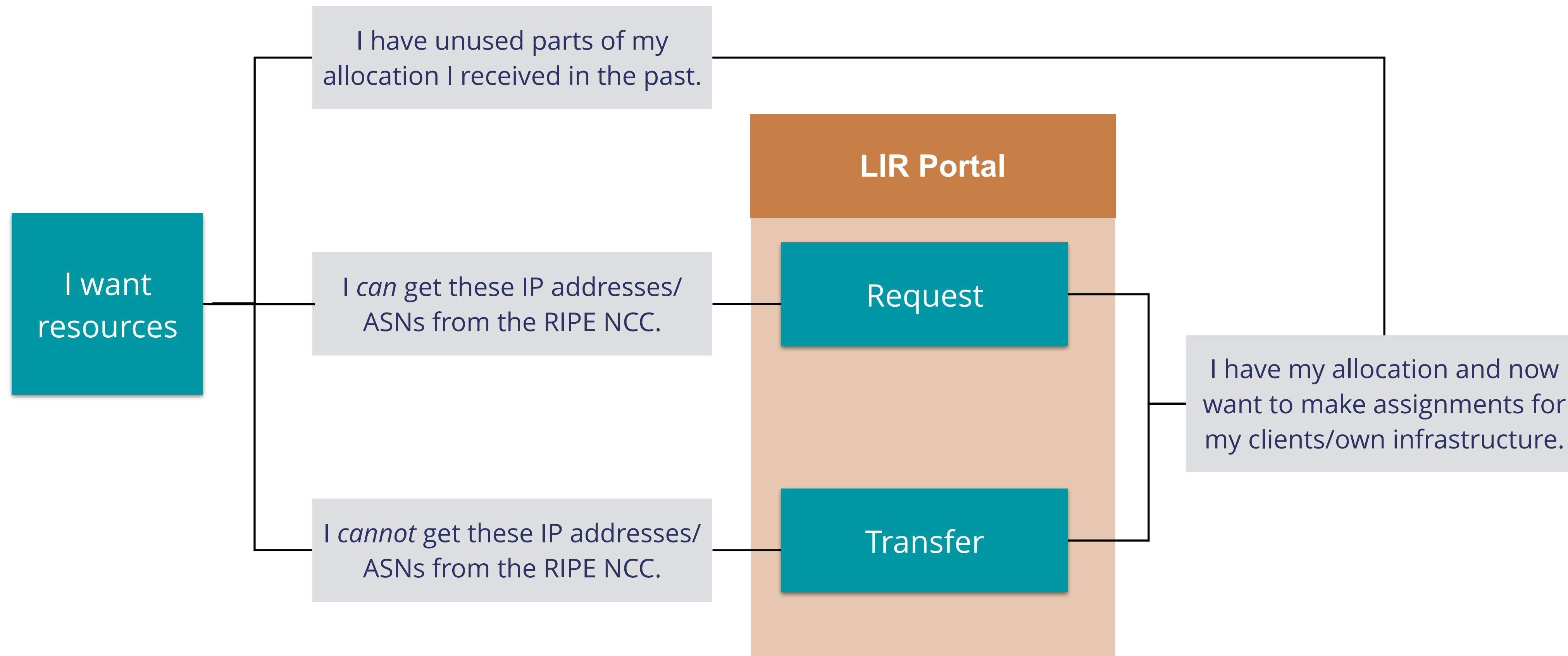


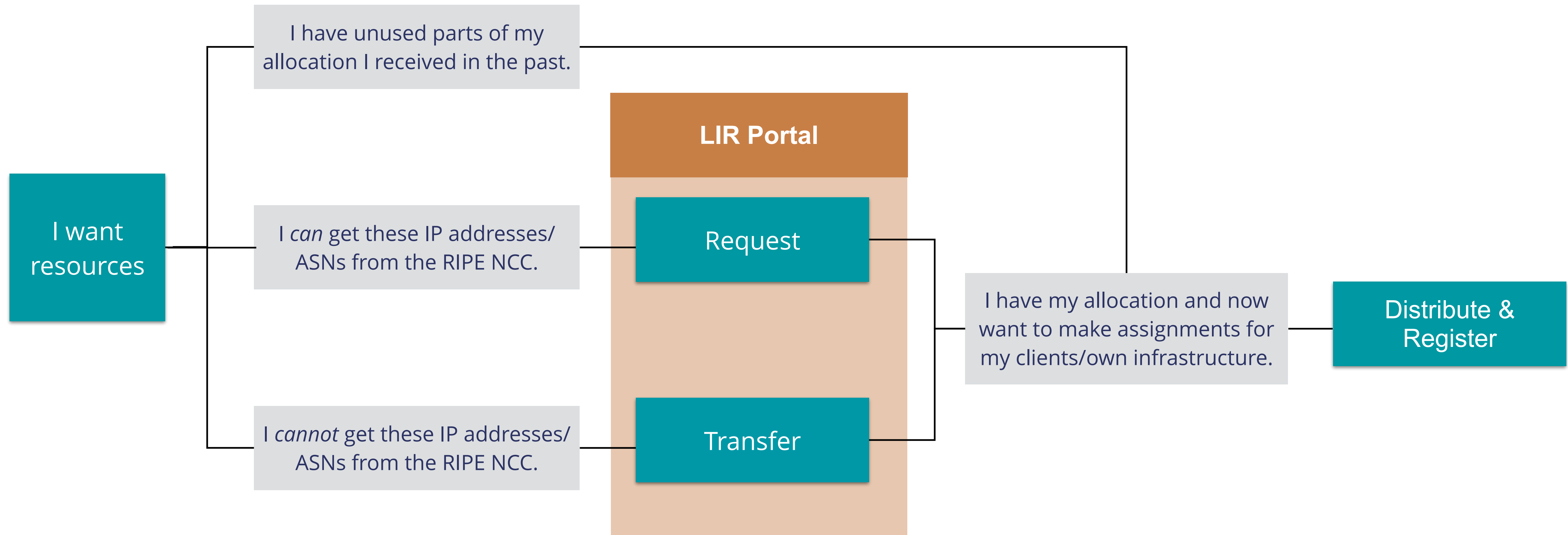


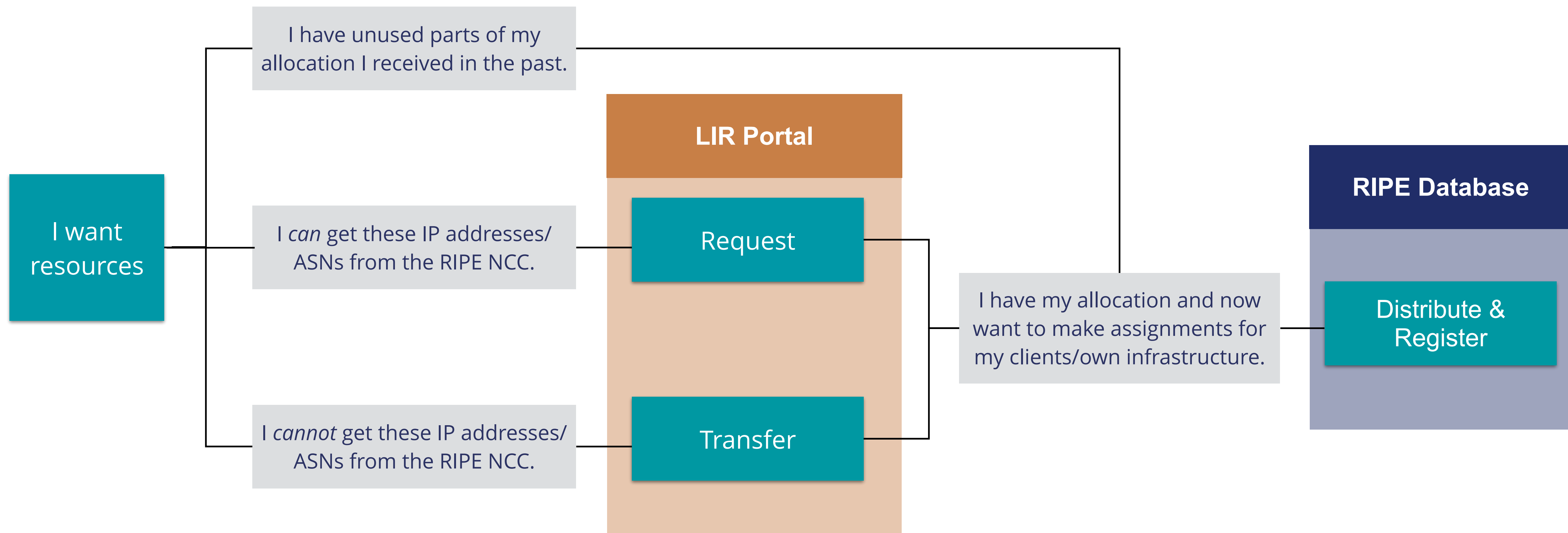














Quiz Question

5



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Get
Resources



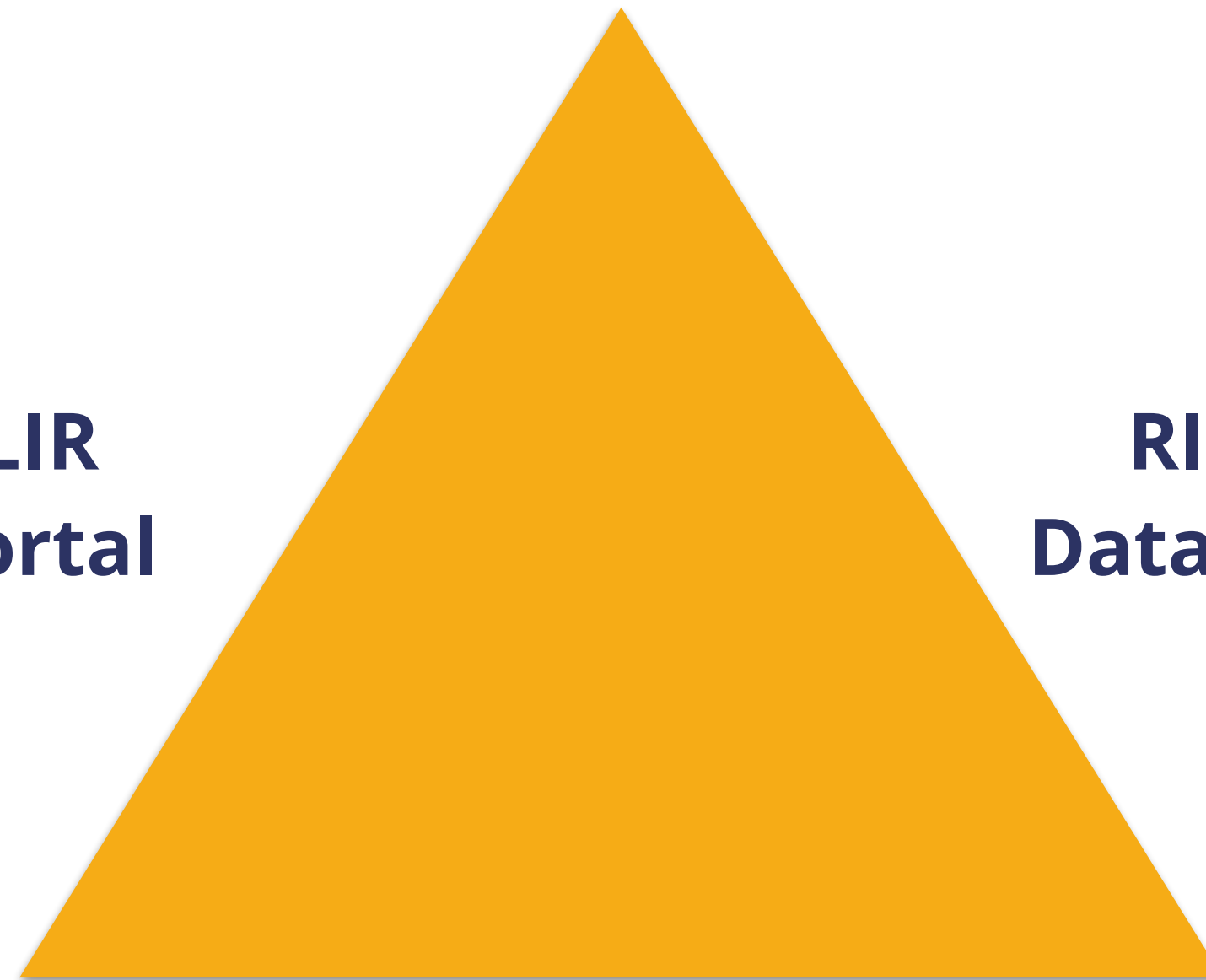
Maintain
My
Resources

- **Why do I need to keep records updated?**
- **How do I keep my records in order?**

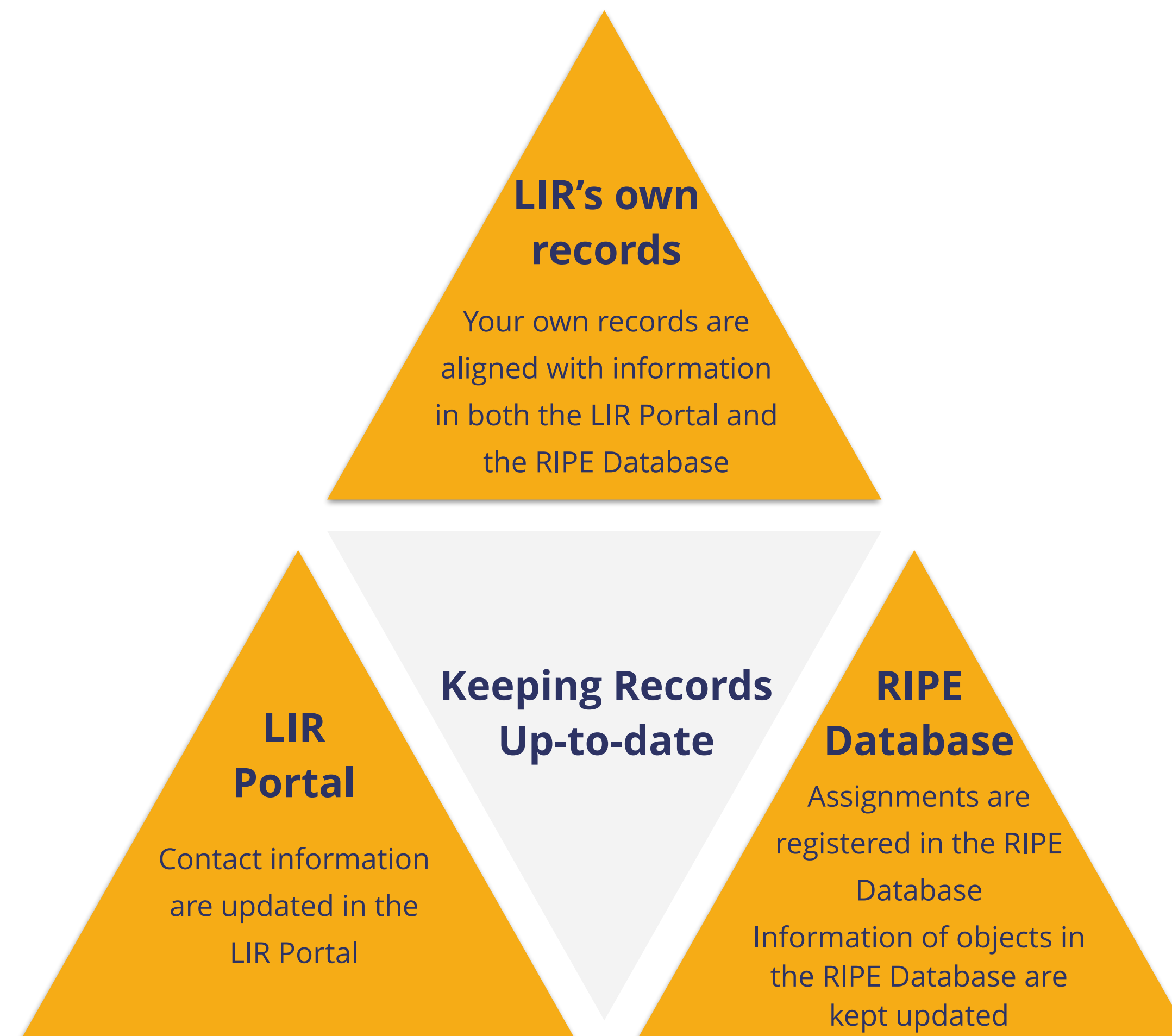


**LIR
Portal**

**RIPE
Database**



**LIR's own
records**





- **Where do I go if I need help?**
- **I want change! Where can I go?**
- **I want to learn more—what's next?**



Contact Us

- **Live chat** on LIR Portal
- **Contact form** on ripe.net



Get
Help



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Learn

- **Live Webinars** on learning.ripe.net
- **Face-to-face training courses** across our service region
- **E-learning** courses on academy.ripe.net
- **Certification** at exams.ripe.net



Get
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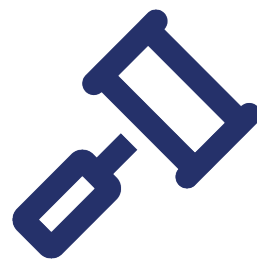
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Change

- Join the **Policy Development Process (PDP)** if you would like to see change in policies!

Get
Help



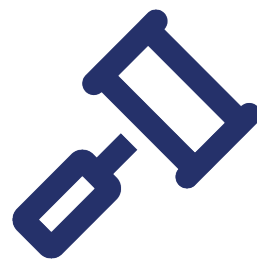
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Support

- **Assisted Registry Checks (ARC)** is a good way to meet our staff in person, do a sanity check on all your resources with us, and ask all your questions!
- Join us at the next **RIPE Meeting/Regional Meeting!**

Get
Help



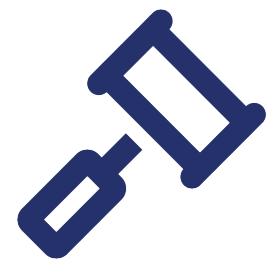
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Other Services

- K-root, DNS, RIPE Atlas, RIPEstat, RIS, DNSMON, RIPE IPmap, RIPE NCC Internet Country Reports, RIPE Labs



Demo of the LIR Fundamentals E-learning course