

Report of the RIPE NCC Charging Scheme Task Force 2024

Report of the RIPE NCC Charging Scheme Task Force 2024	1
Introduction	2
Task Force Composition	2
Charging Scheme Principles	3
1. General	4
Principle(s)	5
2. Charging per Member Category vs Charging per LIR Account	5
Principle(s)	6
3. Differentiation in Member Fees	6
Principle(s)	6
4. Category Model and Category Sizes	7
Principle(s)	7
5. Sign-up Fees	8
Principle(s)	8
6. Charging for IPv6	8
Principle(s)	8
7. Charging for Independent Resources (IPv4 PI, IPv6 PI and ASNs)	9
Principle(s)	9
8. Charging for Legacy Space Holders	9
Principle(s)	11
9. Resource Transfers	11
Principle(s)	13
10. Process for the Charging Scheme Discussions and Adoption	13
Principle(s)	14
Appendix 1 - Distribution of IPv4/IPv6/ASNs/IPv4 PI/IPv6 PI among members	15
Appendix 2 - Registry Update Request Trends	18

Introduction

In 2023 and 2024, the RIPE NCC Management and Executive Board worked on developing charging schemes to support the organisation and meet member needs. In 2023, a category model was rejected by members, and simpler options in 2024 also faced



objections. Multiple alternative proposals were discussed via the members-discuss mailing list. In June 2024, the Board agreed to form a task force to define the principles of future RIPE NCC Charging Schemes.

The Task Force had the following objectives:

- Define the principles of a future Charging Scheme
- Propose an improved process for the annual Charging Scheme discussions and adoption

The Task Force was not tasked to discuss the RIPE NCC Budget or set fees or prices.

A timeline was set whereby the task force would meet regularly to discuss the principles before submitting a report to the Executive Board in the period February-May 2025. The task force would then present its findings at the RIPE NCC General Meeting in May 2025.

Task Force Composition

The Executive Board requested individuals to volunteer who have a good understanding of the RIPE NCC Charging Scheme and related issues. The Board wanted a task force that reflected the diverse range of experience, background, organisation type, nationalities and knowledge that exists within the membership.

The task force was made up of the following people:

RIPE NCC Members:

- Peter Hessler (Task Force Co-Chair)
- Sébastien Brossier
- Alexandru Doszlop
- Carlos Friaças
- Victor Bolaños Guerra
- Alex de Joode
- Ivaylo Josifov
- Ulf Kieber
- Pavel Odintsov
- Cynthia Revström
- Alptekin Sunnetci
- Clara Wade



RIPE NCC Executive Board

- Ondřej Filip (Task Force Co-Chair)
- Raymond Jetten
- Piotr Strzyżewski

RIPE NCC Staff

- Athina Fragkouli
- Simon-Jan Haytink

RIPE NCC Staff Support

- Daniella Coutinho
- Fergal Cunningham
- Karla Liddle-White

Charging Scheme Principles

The task force was tasked with defining high-level principles that could be applied to the Charging Scheme for several years. In order to bring a degree of continuation and to make its work efficient, the task force started its work by reviewing the recommendations of the previous Charging Scheme Task Force report from April 2012. The task force found that several recommendations from the previous report remained valid.

The task force also requested data and information from the RIPE NCC that would help it to make informed decisions. The RIPE NCC provided the task force with anonymous data on the distribution of resource types among members (IPv4 PA, IPv4 PI, IPv6 PA, IPv6 PI and ASNs), information regarding the RIPE NCC's tax agreement with the Dutch government, general information about contractual agreements with Legacy Internet Resource Holders, a review of how the RIPE NCC manages PI assignments, and a review of the charging scheme models used by the other Regional Internet Registries (RIRs).

The areas that the task force discussed are provided below, together with the considerations that were taken into account and the principles that the task force defines for each area. More details on the discussions that took place are available in the [publicly-available minutes from the task force meetings](#).

The intention of the task force is to define principles that will allow the RIPE NCC Executive Board to propose charging schemes that meet the expectations of members while not being so prescriptive as to restrict its ability to adapt the charging scheme to the current needs of the RIPE NCC and its members.



1. General

During its meetings, the task force discussed some high-level principles that would inform its recommendations to the Executive Board.

The concept of fairness was explored, and while it was felt that in the past equality of charging among members could be seen to be fair given the status of the RIPE NCC's IPv4 pool, this was no longer the case. The task force felt that equity rather than equality should be seen as the key driver of fairness for the charging scheme proposals. Equity should be seen as a recognition that different members have different resources and opportunities, so any charging scheme proposals should take this into account.

The task force also examined the set-up of the RIPE NCC in relation to how a member should contribute to its work and stability. There was agreement that there should exist the ability for the Executive Board to charge separately for services that are resource-intensive or that are bespoke services for a smaller group. In general, the members do not pay for individual services but rather for the rights that come with being a member of the RIPE NCC, so a significant majority of income should be derived from membership fees. The task force also noted that being a member comes with responsibilities as well as rights, and that members should contribute to discussions and voting that can help the RIPE NCC develop charging models that accommodate the vast majority of the members.

There were discussions on how complex or simple the charging models should be. The task force acknowledged that a new charging scheme model could be very complex given the diversity within the membership and the need to reach an equitable outcome. However, it also saw the need for a model that was simple enough to give clarity and predictability to members on the fees they would pay, as well as the need for a model that would not be overly burdensome for the RIPE NCC to implement and administer. It was also agreed that how members were charged should not negatively impact the accuracy of the Registry.

Principle(s)

- The charging scheme model should strive for equity among members by taking into account the different resources registered to members
- The charging scheme should be based on the idea that people and organisations pay a significant majority of their fees to be a member of the RIPE NCC, which would allow additional charges for specific services
- The charging scheme should be as complex as it needs to be to ensure equity and fairness for members while being as simple as possible to ensure clarity, predictability and administrative efficiency



- The charging scheme model should not negatively impact the accuracy of the Registry

2. Charging per Member Category vs Charging per LIR Account

The idea of charging per member category taking into account all the resources held by the member over all their LIR accounts, rather than having one fee per LIR account that is invoiced per LIR account, was discussed. It was suggested that using the number of members as the basis to calculate the categories for the charging model would enhance predictability by removing the more variable element of LIR accounts, which is more prone to fluctuation due to the ability of organisations to have multiple LIR accounts. The task force agreed with this assessment and noted that charging on a member basis would also make more sense if a category-based model was introduced. Under this suggestion, there would likely be one invoice issued per member.

An advantage of a category model based on members is that this will give better insight into the membership, as opposed to the current one LIR account-one fee model, and a simpler and more straightforward member administration. A category model based on total resources per LIR account could stimulate the creation of a high number of LIR accounts per member to ensure all LIR accounts are fitted in the smallest/cheapest category, which conflicts with the principle of equity between members.

- Current situation: Membership fee = number of LIR accounts + independent resources + ASNs
- Proposed Situation: Membership fee = number of resources held across all LIR accounts including independent resources and ASNs (formula according to category model to be determined)

Principle(s)

- Charging should be carried out on a per-member basis taking into account all resources held by the member rather than on an LIR account basis

3. Differentiation in Member Fees

The task force noted that in 2012, a differentiation in fees was recommended, although at the General Meeting the members voted for a one LIR account-one fee model that remains in place after more than a decade. The task force generally agreed that the principle of



having differentiated fees based on size of resource holdings was still a valid recommendation, although it noted there were complexities involved in having fair or equitable differentiation given the diversity in type of organisation in the membership as well as taxation factors that the RIPE NCC needed to be conscious of.

The task force considered feedback that not all members with large resource holdings are using those resources to make money or have the ability to pass the cost down to their customers, including national research and educational networks (NRENs), and this should be considered by the Executive Board when it is considering the differentiation of fees among members.

The task force agreed that the principle of differentiation in fees for members should not lead to a price-per-IP model, which could result in a small number of members paying the bulk of fees, and the RIPE NCC moving away from a membership model towards a more commercial model with the tax considerations that would entail. The task force noted that a category model should ensure that those with a small number of resources would pay less than they would under a one LIR account-one fee model.

Reference: See Appendix 1 - Distribution of IPv4/IPv6/ASNs/IPv4 PI/IPv6 PI among members

Principle(s)

- There should be a differentiation of fees among members depending on the amount of PA resources held
- The charging scheme model should balance the diversity of organisations (sizes, types and financial capabilities) while maintaining the RIPE NCC's high service standards and preventing a deficit
- The charging scheme proposals should not compromise the tax agreement that the RIPE NCC has with the Dutch government

4. Category Model and Category Sizes

The task force generally agreed that a category-based model would be most likely to achieve a good outcome for both the RIPE NCC and its members. This was especially the case given that the RIPE NCC is set up as a membership organisation and, therefore, no member can receive more than one vote at General Meetings regardless of which category they would fall into. This ensures that with a category model, members would be able to contribute equally to the good governance of the RIPE NCC.



On the number of categories that should be part of a category model, the task force suggested that a range from eight to twelve categories was likely to be appropriate given the distribution of resources held and the need for striking a good balance between equity and simplicity. The task force considered that the range of categories should also be sufficient so that there is not a major increase in fees should a member move up one category. The task force also noted an issue with the previous category model proposal was that the floor of the top category being a /15 equivalent was too low considering it included 414 members. A more equitable, tiered distribution should be considered instead. It was noted that if a category has a high volume of members and is close to the median allocation size, it should be placed closer to a mid-level tier rather than in a higher-level category.

It was agreed that the category members are placed in should be based on the total resource holdings of members, and the RIPE NCC should structure the charging scheme so that members are not encouraged to manipulate their placement in the charging scheme categories.

Reference: See Appendix 1 - Distribution of IPv4/IPv6/ASNs/IPv4 PI/IPv6 PI among members

Principle(s)

- The amount of categories should be determined by the RIPE NCC, but there should be enough categories to ensure there is no significant increase from one category to the next
- The category that members are placed in should be based on the total PA resource holdings of members and be structured to discourage members from manipulating their placement to qualify for lower fees
- There should be enough categories to ensure an equitable charging scheme based on the distribution of resources
- The category model should ensure that those with a small number of resources would pay less than they would under a one LIR account-one fee model
- The category model should ensure that only those with a large number of resources are towards the higher level categories and those closer to the median allocation size are closer to the medium level categories

5. Sign-up Fees

The task force agreed that a sign-up fee should remain in place. However, the task force also noted that this sign-up fee should not be a barrier to entry for new members but



rather should exist to cover the costs of onboarding new members to the RIPE NCC and carrying out the relevant administration.

Principle(s)

- The sign-up fee should be retained for new LIR accounts in such a way that it does not act as a barrier to entry for new members, but it should cover the administrative costs of onboarding a new member and prevent abuse

6. Charging for IPv6

The task force agreed that IPv6 is a resource that should contribute to members' categorisation in future charging scheme models. Including IPv6 in the categorisation emphasises that IPv6 represents the future of IP addressing and to not include it would minimise its importance. Much of the discussion revolved around the idea that care should be taken to ensure that the charging scheme model should in no way disincentivise take-up of IPv6. The group agreed that charging for IPv6 should be approached in a way that supported and encouraged widespread IPv6 deployment, without creating financial hurdles for smaller organisations. For instance, the default allocation size should constitute the lowest level category.

Reference: See Appendix 1 - Distribution of IPv4/IPv6/ASNs/IPv4 PI/IPv6 PI among members

Principle(s)

- IPv6 should be a factor in a category-based charging scheme model, although it should be included in a way that does not disincentivise take-up of IPv6

7. Charging for Independent Resources (IPv4 PI, IPv6 PI and ASNs)

The task force agreed that there should be a charge for independent resources but that these should be charged separately so there would be no double charging.

There was a discussion about whether the size of PI assignments should be a factor in the fee charged for PI address space. The RIPE NCC currently charges one fee for assignments that are made on the same day, regardless of the size of the assignment and whether or not the resources are in one block of addresses or more than one. It was generally agreed that this approach should continue given that there are relatively few assignments that can be made given the run-out of IPv4. However, the task force



suggested that any lack of clarity between the relevant RIPE policy and the RIPE NCC procedures should be addressed via a policy proposal should there be a need to do so.

The task force discussed whether one or two ASNs should come as part of the base membership fee with additional ASNs being charged, and there was support for this idea in the task force. It was noted that there are relatively few IPv6 PI assignments but that these should be charged for in the same way as IPv4 PI assignments.

Reference: See Appendix 1 - Distribution of IPv4/IPv6/ASNs/IPv4 PI/IPv6 PI among members

Principle(s)

- Provider Independent (PI) resources should be charged separately from members' Provider Aggregatable (PA) resources in order to avoid double charging
- The RIPE NCC should continue its approach of charging once for PI assignments that are made on a single day
- One ASN assignment should be provided to members without charge with fees applied for any additional ASN assignments
- There should be no difference in how charges are applied for IPv4 PI and IPv6 PI
- RIPE policy proposals should be put forward to align policy and assignment procedures if there is a lack of clear alignment between the two

8. Charging for Legacy Space Holders

There were several discussions about legacy space holders and whether they should or could be charged by the RIPE NCC. These discussions sometimes focused on whether legacy address space was within scope for the task force to consider.

The legacy space holders currently fall into three categories. There are legacy space holders with direct contracts with the RIPE NCC (combined membership agreement and legacy agreement) (60% of legacy IPs fall in this category); legacy space holders with an indirect contract (sponsored) (13.4% of legacy IPs fall in this category); and legacy space holders who do not have an agreement with either the RIPE NCC or a sponsoring LIR (26.7% of legacy IPs fall in this category). Those with no agreement have the ability to request an update to their registrations but they do not receive the majority of RIPE NCC services. It was highlighted that if a RIPE NCC member holds legacy space, currently there is no additional charge beyond the membership fee, but if the legacy space holder is sponsored, the sponsoring member must pay a fee equivalent to that for Provider Independent (PI) resources.



It was noted that the RIPE NCC's mandate is to maintain accurate registry data. Currently the RIPE NCC does not charge legacy space holders with no agreement (this is a RIPE NCC decision and is not based on a policy - in general, policies do not define fees). Any proposal to introduce fees without an agreement in place would require a proposal by the Executive Board, potentially approval by the General Meeting (GM), and the creation of a specific legal framework. It was also noted that charging legacy space holders specifically for updating their registration would have to be reviewed in regards to tax-related complications, and the outcome of that review could mean greater operational complexity with regard to legacy services. There are also difficulties attached to charging a party that does not have a contractual relationship with the RIPE NCC.

There was discussion about the obligation to provide minimal services, such as reverse DNS and route objects, to legacy space holders without agreements. Some argued that these services benefit the wider Internet and should remain accessible, while others questioned whether member fees should subsidise legacy space holders. It was also noted that sponsored legacy holders currently receive services, such as certifying resources with RPKI while only paying a typically small fee to their sponsoring LIR, but if they became members, they would pay the standard membership fee without a sign-up fee.

There was general agreement that legacy space holders should be encouraged to become members or enter agreements requiring member sponsorship for registry updates. Another RIR's approach was mentioned where a nominal, capped fee would be charged to legacy holders that entered into a contractual relationship by a certain deadline, with small, predictable increases the following years, in order to incentivise membership adoption. However, the task force acknowledged that this decision does not fall within its scope and should be addressed by the relevant RIPE Working Group. RIPE Document 639, [RIPE NCC Services to Legacy Internet Resource Holders](#), provides the principles to be applied by the RIPE community in offering and implementing registry services for legacy Internet resource holders. It is noted in the policy that the importance of maintaining accurate records in the RIPE Database is recognised as the RIPE NCC's principal task.

Following the publication of the draft report, the task force received feedback from people who were concerned that there would be significant fee increases for those holding legacy resources, especially larger blocks (/16 IPv4 and larger). This was a particular concern for legacy resource holders representing non-commercial institutions such as universities. The task force discussed this feedback and agreed that these institutions should not be concerned and should not be dissuaded from becoming members or signing a contract with a sponsoring LIR. It was decided that a principle should be added clarifying that legacy resources should be charged per organisation, regardless of the size or number of resource blocks held by that organisation.

Reference: See Appendix 2 - Registry Update Request Trends



Principle(s)

- The charging scheme model should financially encourage legacy space holders to become members of the RIPE NCC or have a contractual relationship with a member of the RIPE NCC
- Holders of Legacy resources, which are not covered by a contractual relationship in accordance with the Legacy policy, should pay a fee in cases where the RIPE NCC is required to facilitate updates on their behalf (e.g. providing access rights, making updates, etc.)
- Legacy resources should be charged separately per Legacy Resource Holder organisation. Non-legacy resources should be charged additionally as per the standard model.

9. Resource Transfers

In the discussions on resource transfers, it was noted that the transfer market can be volatile, so the charging should be on a cost-recovery basis for the RIPE NCC rather than fluctuate based on the market prices for resources. Reference was also made to the principle that the membership fee must cover the majority of services provided, so that the RIPE NCC's income is not highly dependent on a volatile market. However, the task force agreed that fees should be attached to resource transfers to offset the operational burden and related costs the RIPE NCC has been incurring to complete their due diligence while processing the transfer requests. For reference, the NCC has been regularly processing 2,500-3,500 transfers (including policy transfers, inter-RIR transfers, legacy updates, and Mergers and Acquisitions) per year since the run-out, a significant jump from the 1,954 processed back in 2015. In 2024, the registry processed a total of 3,883 transfers.

The task force agreed that the RIPE NCC membership needs a new charging scheme model in accordance with the new status quo as it takes staff an average of 75 minutes to process each intra-RIR transfer ticket, 200 minutes for an inter-RIR or M&A transfer, six hours for a legacy transfer between parties with contractual relationships with the RIPE NCC and seven hours for a legacy transfer between parties without contractual relationships. These are the average timeframes based on estimates and indicators gathered from the Registration Services team. Some requests can be processed faster thanks to automation, while others (especially legacy updates) can take significantly longer, with some email exchanges and reviews extending over several years.

The case for charging for legacy transfers became especially evident considering around one-third of legacy transfers involve parties that have no contractual relationship with the RIPE NCC, meaning that on average the work of roughly 0.5 of an FTE is spent per year on



activities that the membership is subsidising for non-contract holders. Some task force members also mentioned that certain address brokers highlight legacy status blocks registered in RIPE in IPv4 sale offers to make them seem more attractive to potential buyers due to their lower recurring administrative costs under current conditions.

The task force also raised the fact that other RIRs do not automatically grant the recipient of a legacy resource transfer the same legacy status and it is instead converted to a standard allocation following transfer to an organisation other than the original legacy resource holder, who was entitled to those rights. However, this was deemed out of scope for the task force as any matters related to address policy would pertain to the relevant RIPE Working Group.

It was agreed that the RIPE NCC should make as few subjective judgments as possible, this being important to ensure that the fee structure is equitable. There was a rough consensus to implement a flat fee on the source of the transfer, regardless of whether this was a policy, legacy or mergers and acquisitions-related transfer, as an administrative, non-refundable fee.

Given the increasing trend in inter-RIR transfers from other regions to the RIPE NCC service region, task force members suggested that the RIPE NCC should also introduce a tiered structure for the recipient of IPv4 transfers based on the size of the block in the case of legacy transfers, of policy transfers between specified recipients within the RIPE NCC service region and between a source in another region and a recipient in the RIPE NCC service region. It was proposed that recipient fees for transfers of /24-/22s should remain modest in a post run-out world as they constitute default allocation sizes and are even necessary to run dual-stack networks. These constituted 83% of the policy transfers within RIPE in 2024 (by count).

The task force agreed that no tiered recipient fee should apply in the case of M&As. It was pointed out that some M&As, such as university mergers, occur out of necessity rather than choice. In response, a flat-rate fee for M&As was proposed that would be balanced—not too high or too low and to include a note to consider unique or complex cases, such as university mergers, for further exploration. It was also noted that another RIR charges a flat fee of \$500 to the source for all transfer types, but unlike the tiered structure for recipients under policy transfers, there is no fee for M&A transfer recipients.

For ASNs, the task force noted there was no practical way to differentiate fees based on length. For IPv6 transfers, it was proposed that there should be no differentiation between large and small allocations, although high-volume transfers could warrant further consideration. It was noted that since the cessation of stockpiling, there haven't been significant transfers of IPv6.



Note: In this section, “Mergers & Acquisitions” refers to any change in business structure as documented in RIPE 831, “[Transfer of Internet Number Resources and Change of a Member’s Official Legal Name](#)”.

Reference: See Appendix 2 - Registry Update Request Trends

Principle(s)

- The RIPE NCC Charging Scheme should include fees for resource transfers (including Mergers and Acquisitions and legacy resource transfers) to offset the cost of this activity to the RIPE NCC
- The income that the RIPE NCC receives from transfer fees should not conflict with the principle that the significant majority of income should come from membership fees rather than from other sources of income

10. Process for the Charging Scheme Discussions and Adoption

The task force reviewed the current process under which the charging scheme is proposed and adopted by the RIPE NCC. It was agreed that the current situation whereby the charging scheme is created by the RIPE NCC, proposed by the RIPE NCC Executive Board and brought to the members for their approval at the General Meeting should continue. The task force noted the importance of having the membership be the final approving party in the process for adopting the charging schemes.

The RIPE NCC currently publishes a draft charging scheme in advance of publishing a final charging scheme for members to vote on four weeks ahead of the General Meeting. It was noted that this gives the members time to comment on the draft and for the Board to take this feedback into account before arriving at the final charging scheme to be voted on. The task force agreed that this is a good practice and should continue.

Finally, it was noted that it would be beneficial to have a member-based task force review and discuss the charging scheme model at regular intervals to ensure the charging model is fit for purpose and equitable for the membership as a whole. The RIPE NCC currently has a five-year strategy cycle and aligning the formation of charging scheme task forces with this cycle would bring good alignment for members and for the RIPE NCC. It was also noted that this would give sufficient predictability for members rather than introducing sudden changes to the model on an irregular basis.



Principle(s)

- The RIPE NCC Charging Scheme should be designed by the RIPE NCC, proposed by the RIPE NCC Executive Board and approved by the RIPE NCC membership
- The RIPE NCC should propose a draft charging scheme in advance of publishing a final version so that members have adequate time to give their input on the proposal
- A member-based charging scheme task force should be formed on a regular basis to ensure the charging scheme model remains fit for purpose



Appendix 1 - Distribution of IPv4/IPv6/ASNs/IPv4 PI/IPv6 PI among members

This appendix shows the distribution of Internet resources allocated or assigned by the RIPE NCC to its members as at Q4 2024.

IPv4 /24s Held per LIR Account

IPv4 Groups	IPv4 /24s held	LIRs		Total /24 IPv4		Total /32 IPv6		Total ASN		Total IR IPv4		Total IR IPv6	
		Count	Distribution	Sum	Distribution	Sum	Distribution	Sum	Distribution	Sum	Distribution	Sum	Distribution
A	0-1	1,198	5.6%	1	0.0%	5,756	3.2%	801	2.1%	5	0.0%	26	0.7%
B	1-2	2,346	11.0%	2,338	0.1%	10,698	5.9%	2,080	5.4%	116	0.5%	78	2.0%
C	2-4	817	3.8%	1,768	0.1%	4,163	2.3%	1,092	2.8%	247	1.2%	67	1.7%
D	4-6	6,759	31.8%	27,347	0.9%	32,246	17.7%	5,733	14.9%	468	2.2%	253	6.5%
E	6-11	2,501	11.8%	18,187	0.6%	12,453	6.8%	3,267	8.5%	1,086	5.1%	264	6.8%
F	11-16	1,281	6.0%	14,556	0.5%	7,821	4.3%	1,644	4.3%	687	3.2%	166	4.3%
G	16-26	1,751	8.2%	31,450	1.0%	10,899	6.0%	2,917	7.6%	1,216	5.7%	276	7.1%
H	26-50	1,687	7.9%	53,831	1.7%	10,962	6.0%	2,805	7.3%	1,446	6.7%	250	6.5%
I	50-100	1,082	5.1%	66,928	2.2%	8,166	4.5%	3,332	8.7%	2,130	9.9%	414	10.7%
J	100-200	636	3.0%	78,912	2.6%	7,992	4.4%	2,463	6.4%	1,891	8.8%	347	9.0%
K	200-500	575	2.7%	162,540	5.3%	11,595	6.4%	3,525	9.2%	2,895	13.5%	431	11.2%
L	500-1,500	309	1.5%	233,801	7.6%	12,762	7.0%	3,195	8.3%	2,874	13.4%	377	9.8%
M	1,500-3,000	89	0.4%	157,499	5.1%	1,199	0.7%	1,386	3.6%	970	4.5%	144	3.7%
N	3,000-5,000	56	0.3%	187,024	6.1%	670	0.4%	1,242	3.2%	1,518	7.1%	216	5.6%
O	5,000-10,000	67	0.3%	375,590	12.2%	1,237	0.7%	1,500	3.9%	1,672	7.8%	302	7.8%
P	10,000-20,000	34	0.2%	349,112	11.3%	3,596	2.0%	647	1.7%	953	4.4%	97	2.5%
Q	20,000-50,000	44	0.2%	719,633	23.4%	10,719	5.9%	614	1.6%	910	4.2%	106	2.7%
R	50,000-130,000	16	0.1%	601,184	19.5%	28,866	15.9%	231	0.6%	358	1.7%	51	1.3%
Grand Total		21,248	100%	3,081,702	100%	181,800	100%	38,474	100%	21,442	100%	3,865	100%

Groups are defined based on the amount of IPv4 /24s held in LIR accounts. Each group includes LIR accounts holding at least as much as the lower limit and up to (but not including) the upper limit set for that group.

The Sum columns show the total amount of different types of resources held by the group members. Group D includes the Last /8 Policy default allocation size of /22 (4x /24)



IPv6 /32s Held per LIR Account

IPv6 Groups	IPv6 /32s held	LIRs		Total /32 IPv6		Total /24 IPv4		Total ASN		Total IR IPv4		Total IR IPv6	
		Count	Distribution	Sum	Distribution	Sum	Distribution	Sum	Distribution	Sum	Distribution	Sum	Distribution
A	0-1	4,963	23.4%	0	0.0%	137,510	4.5%	3,752	9.8%	1,669	7.8%	196	5.1%
B	1-2	4,471	21.0%	4,376	2.4%	306,038	9.9%	6,881	17.9%	4,264	19.9%	570	14.7%
C	2-4	288	1.4%	534	0.3%	96,013	3.1%	1,013	2.6%	739	3.4%	138	3.6%
D	4-6	119	0.6%	474	0.3%	28,401	0.9%	362	0.9%	163	0.8%	29	0.8%
E	6-11	9,600	45.2%	74,502	41.0%	842,703	27.3%	16,991	44.2%	8,638	40.3%	1,694	43.8%
F	11-16	71	0.3%	715	0.4%	63,776	2.1%	739	1.9%	628	2.9%	86	2.2%
G	16-26	1,065	5.0%	16,218	8.9%	348,410	11.3%	3,852	10.0%	1,985	9.3%	557	14.4%
H	26-50	305	1.4%	7,790	4.3%	249,988	8.1%	2,276	5.9%	1,582	7.4%	262	6.8%
I	50-100	158	0.7%	6,096	3.4%	154,258	5.0%	973	2.5%	563	2.6%	103	2.7%
J	100-200	62	0.3%	5,328	2.9%	112,506	3.7%	634	1.6%	289	1.3%	88	2.3%
K	200-500	89	0.4%	9,414	5.2%	106,125	3.4%	368	1.0%	261	1.2%	57	1.5%
L	500-1,500	34	0.2%	10,563	5.8%	201,798	6.5%	299	0.8%	209	1.0%	16	0.4%
M	1,500-3,000	7	0.0%	13,009	7.2%	43,254	1.4%	112	0.3%	93	0.4%	6	0.2%
N	3,000-5,000	13	0.1%	8,205	4.5%	116,954	3.8%	54	0.1%	78	0.4%	15	0.4%
O	5,000-10,000	3	0.0%	24,576	13.5%	273,969	8.9%	168	0.4%	281	1.3%	48	1.2%
Grand Total		21,248	100%	181,800	100%	3,081,702	100%	38,474	100%	21,442	100%	3,865	100%

Groups are defined based on the amount of IPv6 /32s held in LIR accounts. Each group includes LIR accounts holding at least as much as the lower limit and up to (but not including) the upper limit set for that group.

The Sum columns show the total amount of different types of resources held by the group members.

Group E includes the RIPE policy default allocation size of /29 (8x /32)

ASNs Held per LIR Account

ASN Groups	ASNs held	LIRs		Total ASN		Total /24 IPv4		Total /32 IPv6		Total IR IPv4		Total IR IPv6	
		Count	Distribution	Sum	Distribution	Sum	Distribution	Sum	Distribution	Sum	Distribution	Sum	Distribution
A	0-1	4,724	22.2%	0	0.0%	127,356	4.1%	24,701	13.6%	854	4.0%	48	1.2%
B	1-2	11,848	55.8%	11,435	29.7%	520,986	16.9%	60,393	33.2%	2,994	14.0%	334	8.6%
C	2-4	3,051	14.4%	6,380	16.6%	559,178	18.1%	34,545	19.0%	3,182	14.8%	575	14.9%
D	4-6	657	3.1%	2,631	6.8%	274,426	8.9%	10,101	5.6%	1,749	8.2%	391	10.1%
E	6-11	503	2.4%	3,086	8.0%	281,720	9.1%	6,878	3.8%	2,443	11.4%	547	14.2%
F	11-16	165	0.8%	1,802	4.7%	178,010	5.8%	3,925	2.2%	1,356	6.3%	283	7.3%
G	16-26	127	0.6%	2,054	5.3%	183,841	6.0%	6,051	3.3%	1,559	7.3%	263	6.8%
H	26-50	91	0.4%	2,479	6.4%	408,918	13.3%	12,564	6.9%	1,826	8.5%	383	9.9%
I	50-100	46	0.2%	2,515	6.5%	319,124	10.4%	13,535	7.4%	1,916	8.9%	348	9.0%
J	100-200	24	0.1%	2,649	6.9%	207,511	6.7%	8,770	4.8%	1,575	7.3%	418	10.8%
K	200-500	12	0.1%	3,443	8.9%	20,633	0.7%	337	0.2%	1,988	9.3%	275	7.1%
Grand Total		21,248	100%	38,474	100%	3,081,702	100%	181,800	100%	21,442	100%	3,865	100%

Groups are defined based on the number of ASNs held in LIR accounts. Each group includes LIR accounts holding at least as much as the lower limit and up to (but not including) the upper limit set for that group.



IPv4 /24 Independent Resources Held per LIR Account

IPv4 IR Groups	IPv4 IR /24s held	LIRs		Total IR IPv4		Total /24 IPv4		Total /32 IPv6		Total ASN		Total IR IPv6	
		Count	Distribution	Sum	Distribution	Sum	Distribution	Sum	Distribution	Sum	Distribution	Sum	Distribution
A	0-1	16,524	77.8%	0	0.0%	470,002	15.3%	102,011	56.1%	15,881	41.3%	381	9.9%
B	1-2	2,161	10.2%	2,068	9.6%	223,909	7.3%	20,347	11.2%	4,049	10.5%	441	11.4%
C	2-4	1,303	6.1%	2,890	13.5%	251,051	8.1%	9,964	5.5%	3,445	9.0%	500	12.9%
D	4-6	468	2.2%	1,865	8.7%	172,153	5.6%	5,291	2.9%	1,678	4.4%	273	7.1%
E	6-11	385	1.8%	2,495	11.6%	365,134	11.8%	14,689	8.1%	2,448	6.4%	521	13.5%
F	11-16	127	0.6%	1,519	7.1%	151,375	4.9%	2,161	1.2%	1,553	4.0%	267	6.9%
G	16-26	149	0.7%	2,358	11.0%	376,789	12.2%	5,908	3.2%	1,883	4.9%	326	8.4%
H	26-50	60	0.3%	1,968	9.2%	384,442	12.5%	3,611	2.0%	1,717	4.5%	319	8.3%
I	50-100	45	0.2%	2,305	10.7%	425,124	13.8%	9,305	5.1%	2,383	6.2%	453	11.7%
J	100-200	19	0.1%	1,863	8.7%	124,254	4.0%	240	0.1%	1,780	4.6%	148	3.8%
K	200-500	6	0.0%	1,549	7.2%	132,764	4.3%	8,265	4.5%	1,273	3.3%	149	3.9%
L	500-1,500	1	0.0%	562	2.6%	4,705	0.2%	8	0.0%	384	1.0%	87	2.3%
Grand Total		21,248	100%	21,442	100%	3,081,702	100%	181,800	100%	38,474	100%	3,865	100%

Groups are defined based on the amount of /24 IPv4 independent resources held in LIR accounts. Each group includes LIR accounts holding at least as much as the lower limit and up to (but not including) the upper limit set for that group.

The Sum columns show the total amount of different types of resources held by the group members.

IPv6 /32 Independent Resources Held per LIR Account

IPv6 IR Groups	IPv6 IR /32s held	LIRs		Total IR IPv6		Total /24 IPv4		Total /32 IPv6		Total ASN		Total IR IPv4	
		Count	Distribution	Sum	Distribution	Sum	Distribution	Sum	Distribution	Sum	Distribution	Sum	Distribution
A	0-1	19,701	92.7%	0	0.0%	1,618,032	52.5%	138,416	76.1%	22,221	57.8%	8,600	40.1%
B	1-2	931	4.4%	873	22.6%	383,114	12.4%	8,103	4.5%	4,416	11.5%	2,862	13.3%
C	2-4	369	1.7%	744	19.2%	381,679	12.4%	16,032	8.8%	3,041	7.9%	2,567	12.0%
D	4-6	100	0.5%	415	10.7%	121,119	3.9%	3,450	1.9%	1,853	4.8%	1,463	6.8%
E	6-11	88	0.4%	559	14.5%	290,209	9.4%	2,170	1.2%	2,213	5.8%	2,135	10.0%
F	11-16	23	0.1%	234	6.1%	59,701	1.9%	4,553	2.5%	931	2.4%	615	2.9%
G	16-26	23	0.1%	386	10.0%	63,940	2.1%	433	0.2%	1,854	4.8%	1,656	7.7%
H	26-50	8	0.0%	285	7.4%	150,111	4.9%	8,467	4.7%	1,025	2.7%	910	4.2%
I	50-100	4	0.0%	227	5.9%	4,928	0.2%	168	0.1%	796	2.1%	584	2.7%
J	100-200	1	0.0%	142	3.7%	8,868	0.3%	8	0.0%	124	0.3%	50	0.2%
Grand Total		21,248	100%	3,865	100%	3,081,702	100%	181,800	100%	38,474	100%	21,442	100%

Groups are defined based on the amount of IPv6 /32 independent resources held in LIR accounts. Each group includes LIR accounts holding at least as much as the lower limit and up to (but not including) the upper limit set for that group.

The Sum columns show the total amount of different types of resources held by the group members.

PI space in IPv6 is assigned as /48s, which are included in Group A

You can also access spreadsheets that contain the information contained in this appendix:

- [IPv4 /24s held per LIR account](#)
- [IPv6 /32s held per LIR account](#)
- [ASNs held per LIR account](#)
- [IPv4 /24 independent resources held per LIR account](#)
- [IPv6 /32 independent resources held per LIR account](#)



Appendix 2 - Registry Update Request Trends

Table 1: Legacy ASN count at end of Q1 2025

	Count
Legacy sponsored	17
Legacy member	231
Legacy no contract	496

Table 2: Legacy IPv4 count at end of Q1 2025

	# of IPv4s
Legacy sponsored	25,046,016
Legacy member	110,611,200
Legacy no contract	49,148,416

Table 3: Development of the contractual status of legacy IPv4 ranges

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025 end Q1
Legacy sponsored	323	432	462	471	483	579	605	630	647	660	681
Legacy member*	395	492	687	754	806	978	1,127	1,226	1,317	1,369	1,425
Legacy no contract	3,217	2,959	2,816	2,794	2,771	2,620	2,537	2,507	2,469	2,428	2,396

* Refers to legacy resources that belong to a holder with a direct contractual relationship with the RIPE NCC, either as member or with a Legacy Service Agreement



Table 4: Development of registry update requests

Requests	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
M&As	702	544	286	375	619	516	418	675	519	379
RIPE NCC service region transfers	1,248	1,271	1,468	1,995	2,061	2,887	3,616	2,330	2,886	2,818
Inter-RIR transfers	4	70	83	114	168	175	344	250	324	406
Legacy updates*							371	268	249	280

* This term refers to any change in the holderhip of a legacy resource. Such changes can result from an M&A or the sale of the resource. Since these changes are not regulated by RIPE policies and to differentiate them from policy-based transfers of all other resources, we refer to them as Legacy updates. Starting in 2021, these requests were tracked under a separate ticket category. Before that, they were part of a broader category, so reliable data is only available from 2021 onwards.

Table 5: Policy transfers in 2024 by resource type

Resource type	# of transfers*
IPv4 only	1,894
IPv4 and other	639
IPv6 only	96
ASN only	174
IPv6 and ASN	15
Total	2,818

*inside RIPE NCC service region



Table 6: IPv4 policy transfers in 2024 by size

Size	# of transfers* (in 2024)
/24	1,117
>/24 - /22	1,065
>/22 - /18	315
>/18 - /16	28
/16+	8
Total	2,623

**inside RIPE NCC service region*

Table 7: Comparison of registry updates

	RIPE NCC region transfers	Inter-RIR transfers	M&A	Legacy Update
Tickets (annual average)	2,500	350	500	300
Average processing time*	75 min	200 min	200 min	360 min (contract) 420 min (no contract)
Automation	high	low	low	low
% of requests involving a member	93%	90%	95%	66% (all contracts)

**Estimation based on samples and team experience*