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(Version 2022-1)

The goal of this document is to provide a comparative overview of policies across the Regional Internet Registry (RIR) system. It is not a policy statement by the RIRs, but serves as a reference for the Internet community. While this document was accurate on the date of publication (April 2022) it may be outdated by subsequent policy implementations. The official policy documents can be found at the respective websites of the RIRs. This is a public document that will be reviewed and revised quarterly through the coordinated efforts of the RIRs.

For more information, refer to the AFRINIC, APNIC, ARIN, LACNIC, and RIPE NCC websites.

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1. GENERAL

1.1 GOALS OF THE RIR SYSTEM

RIR	Policy
AFRINIC **APNIC** **ARIN** **LACNIC** **RIPE NCC**	All allocations and assignments of Internet resources must be consistent with the goals of the Internet Registry system: aggregation, conservation and registration.

1.2 MEMBERSHIP

RIR	Category	Policy
AFRINIC	Qualification	Membership is open only to organizations or persons legally present and providing services in the AFRINIC service region.
	Access to delegation and registration services	Resource registration is available to members only. AFRINIC manages and distributes Internet Number Resources for its service region only. - AFRINIC requires organizations/persons to be legally present and the infrastructure from which the services are originating must be located in the AFRINIC service region. - The need for IP resources shall also be demonstrated
	Fee model	Not-for profit. Fee established to enable cost recovery of operations.
APNIC	Qualification	Membership is open to all organizations and individuals.
	Access to delegation and registration services	APNIC delegates resources only to organizations, which are legally present, or have networks located in the APNIC region. Organizations located outside the APNIC service region must use resources delegated by APNIC within the service region. APNIC permits organizations located within the APNIC service region to use APNIC-delegated resources out of region. - Members have full access to all services. - Non-member account holders have full access to all services, except member's voting activities. - Non-member historical maintenance account holders have access to maintenance of their historical resource information only.
	Fee model	Not-for-profit. Fee schedule established to enable cost recovery of operations.
ARIN	Qualification	Membership is open only to organizations legally present in the ARIN service region. Organizations that receive direct allocations automatically become members. Membership is also open to organizations with direct assignments, or ARIN issued Autonomous System Numbers.

RIR	Category	Policy
LACNIC		Entities with a signed LRSA / RSA and Internet number resources from ARIN (end users, for example) may become members by filling out the application and paying an annual $500 membership fee or requesting to enroll in ARIN's Registration Services Plan.
	Access to delegation and registration services	Do not need to be a member to receive registration services. ARIN manages and distributes Internet number resources within its region. To receive resources, ARIN requests organizations to verify that: • It has a legally recognized business operation within the ARIN region; • It plans on using the resources within the ARIN region and, with regard to IPv4 and IPv6, routing the least-specific prefix within the ARIN region; and • It has technical infrastructure located within the ARIN region.
	Fee model	Not-for-profit. Fee schedule established to enable cost recovery of operations.
	Qualification	Membership is open to LACNIC region only, without conditions.
	Access to delegation and registration services	Numbering resources under the stewardship of LACNIC must be distributed among organizations legally constituted within its service region and mainly serving networks and services operating in this region. LACNIC requires organizations to be legally present and have network infrastructure in the LACNIC service region to apply for and receive resources. • Organizations approved for IP addresses automatically become members. It is not necessary to become a member to obtain some services, like ASN assignments. • External clients connected directly to main infrastructure located in the region are allowed.
	Fee model	Not-for-profit. Fee schedule established to enable cost recovery of operations.
RIPE NCC	Qualification	Membership is open without conditions.
	Access to delegation and registration services	Access to registration services is available to members only. Legacy resource holders who have a non-member service contract with the RIPE NCC can also access some registration services. The RIPE NCC delegates or registers resources to organizations and individuals that have a need in its service region. The network that will be using the resources must have an active element located in the RIPE NCC service region.
	Fee model	Not-for-profit. Fee schedule established to enable cost recovery of operations.

1.3 ALLOCATION TERMS AND CONDITIONS

1.3.1 TYPE OF CUSTODIANSHIP

RIR	Policy
AFRINIC	Valid as long as original criteria remain satisfied.

RIR	Policy
APNIC	Allocates and assigns on a 'license" basis, to be of specific limited duration (normally 1 year). Licenses are renewable if: • The original basis of the allocation or assignment remains valid, and • Requirements have been met at time of renewal.
ARIN	Valid as long as organization remains in compliance with policy and registration fees are kept up to date.
LACNIC	Valid as long as original criteria remain satisfied and registration fees are kept up to date.
RIPE NCC	Valid as long as original criteria remain satisfied.

1.3.2 TRANSFER OF CUSTODIANSHIP

RIR	Policy
AFRINIC	Allows transfer of IPv4 addresses within the AFRINIC service region. The IPv4 resources to be transferred must be from an existing AFRINIC member's account or from a Legacy Resource Holder in the AFRINIC service region. **Conditions on the source of the transfer:** • The source must be the current rightful holder of the IPv4 address resources recognized by AFRINIC, and not be involved in any dispute as to the status of those resources. • Source entities are not eligible to receive any further IPv4 address allocations or assignments from AFRINIC for a period of 12 months after a transfer approval. • Source entities must not have received a transfer, allocation, or assignment of IPv4 number resources from AFRINIC for the 12 months prior to the approval of a transfer request. This restriction excludes transfers due to mergers and acquisitions. **Conditions on the recipient of the transfer:** • AFRINIC must approve the recipient's need for the IPv4 number resources. In order for an organization to qualify for receiving a transfer, it must first go through the process of justifying its IPv4 resource needs before AFRINIC. That is to say, the organization must justify before AFRINIC its initial/additional allocation/assignment usage, as applicable, according to the policies in force. • The recipient must be an AFRINIC member, subject to current AFRINIC policies and must sign the Registration Services Agreement for resources being received. • Transferred IPv4 legacy resources will no longer be regarded as legacy resources.
APNIC	APNIC recognizes resource transfers under the following conditions: • Historical resources may be transferred to an APNIC Member account. Transfers are purely optional and do not need to meet any technical justifications. • APNIC recognizes transfers of AS numbers and IPv4 address blocks of /24 or greater between APNIC account holders. Recipients are required to justify their need for the resources. • Transfers of AS numbers and IPv4 address blocks of a /24 or greater are recognized between APNIC account holders and account holders in other regions, only where that region has a suitable Inter-RIR transfer policy. The APNIC account holder must meet the requirements of APNIC policy and the entity in the other region must meet the policy requirements and criteria in its own region. If the recipient is in the APNIC region, they are required to justify their need for the resources.

RIR	Policy
	• APNIC recognizes the transfer of any numeric resource resulting from mergers, acquisitions, and takeovers, where the effect of the new ownership is that an LIR changes its name. Supporting legal documentation is required, as is full disclosure of all address space held by all entities involved. • Addresses delegated from the 103/8 free pool cannot be transferred for a minimum of five years after the original delegation.
ARIN	IPv4 number resources and ASNs within the ARIN region may be released to ARIN by the authorized resource holder, in whole or in part, for transfer to another specified organizational recipient. Organizations without direct assignments or allocations from ARIN qualify for transfer of an initial IPv4 block of ARIN's minimum transfer size. Organizations may qualify for the transfer of a larger initial block, or an additional block, by providing documentation to ARIN which details the use of at least 50% of the requested IPv4 block size within 24 months. Organizations with direct assignments or allocations from ARIN must have efficiently utilized at least 50% of their cumulative IPv4 address blocks in order to receive additional space. Organizations may also qualify for additional IPv4 address blocks (up to a /16 once every 6 months) by demonstrating 80% utilization of their currently allocated space. An officer of the organization shall attest to the documentation provided to ARIN. The recipient must demonstrate the need for up to a 24-month supply of IP address resources under current ARIN policies and sign an RSA. Reserved pool resources are ineligible. Inter-regional transfers of IPv4 number resources may take place only via RIRs who agree to the transfer and share reciprocal, compatible, needs-based policies. ARIN also recognizes name changes and transfers due to mergers, acquisitions and reorganizations. Requires documentation that the assets using the resources or the other organization as a whole has been acquired. These transfers are not subject to additional needs assessments.
LACNIC	Internet resources assigned by LACNIC may be the object of transfers within the LACNIC service region. Such transfers will be acknowledged provided that they fall within the following situations: - Transfer due to merger, acquisition, reorganization or relocation. To initiate this change and proceed with the registration, legal documentation must be submitted which, at the discretion of LACNIC, supports the operation. Examples of such documentation include: • A copy of the legal document validating the transfer of assets. • A detailed inventory of all the assets used by the applicant for maintaining the resources in use. • A list of the applicant's clients using the resources. The need to maintain all the resources must also be justified. More information in section 2.3.2.17 of the Policy Manual. - Other transfers of IPv4 resources within LACNIC service region This type of transfer occurs when the operation involves IPv4 blocks only, not the merger or acquisition of an entire organization. In this situation, in addition to submitting a transfer form, both the offering and the receiving Organizations must meet some requirements and agree with the terms established in the LACNIC policies More information in section 2.3.2.18 of the Policy Manual. IPv4 block transfers shall be allowed between LIRs and/or End Users (hereinafter organizations) in accordance with the conditions set forth in this section. This policy applies both to transfers where one of the organizations involved is part of another region (inter-RIR transfers) as well as to transfers within the LACNIC region (intra- RIR transfers) The minimum block size that may be transferred is a /24.

RIR	Policy
	In order for an organization within the LACNIC region to qualify for receiving a transfer, it must first go through the process of justifying its IPv4 resources before LACNIC. That is to say, the organization must justify before LACNIC the initial/additional allocation/ assignment, as applicable, according to the policies in force. If the receiving organization is part of another region, it will be subject to the criteria, verifications and requirements of the corresponding RIR. LACNIC or the corresponding RIR (depending on whether the transfer is inbound or outbound) will verify the holder of the resources to be transferred and check that they are not involved in any dispute. In the case of intra-RIR transfers, both organizations must submit to LACNIC a signed copy of the legal document supporting the transfer. In the case of inter-RIR transfers, the documentation supporting the operation will be agreed between the two RIRs. LACNIC shall maintain a publicly accessible transfer log of all IPv4 address block transfers registered before LACNIC. This log will be used to record the date on which the transaction took place, the organization that originated the transfer, the receiving organization, the transferred addresses and, in the case of inter-RIR transfers, the source and destination RIRs. The organization that originated the transfer shall automatically be ineligible to receive IPv4 resource allocations and/or assignments from LACNIC for a period of one year as of the transaction date registered in the transfer log. Addresses that have previously been transferred may not subsequently be transferred again (in full or in part) for a period of one year as of the transaction date specified in the transfer log. Once the transfer is complete, LACNIC shall modify the information on the transferred resource in order to reflect the change of holder. Both the transferring and the receiving organizations will be subject to the policies and membership terms and conditions of the corresponding RIR. Addresses from allocations or assignments from LACNIC, whether initial or additional, may not be transferred (in full or in part) for a period of three years as of the allocation or assignment date. Legacy resources transferred into the LACNIC region will no longer be considered legacy resources.
RIPE NCC	Member LIRs can transfer complete or partial blocks of IPv4 and IPv6 address space that was previously allocated to them by either the RIPE NCC or the IANA within the RIPE NCC service region. The receiving LIR must confirm it will make assignment(s) from the allocation.
	Resource holders of IPv4 Provider Independent (PI) and IPv6 PI space that was previously assigned to them by the RIPE NCC can also transfer complete or partial blocks within the RIPE NCC service region. When transferring PI space, the recipient of the transfer must confirm a specific intended purpose for the resources in order to receive the reassignment.
	Scarce resources, which are understood as those resources that are allocated or assigned by the RIPE NCC on a restricted basis (such as IPv4 or 16-bit ASNs), cannot be transferred for 24 months from the date the resource was received by the resource holder. This restriction also applies if the resource was received due to a change in the organisation's business (such as a merger or acquisition). This restriction does not prevent the resources from being transferred due to further mergers or acquisitions within the 24-month period.
	Inter-RIR transfers of any type of Internet number resource are possible if both RIRs have compatible transfer policies. For transfers to the RIPE NCC service region from RIRs that have needs-based policies, recipients must provide the RIPE NCC with a plan for the use of at least 50% of the transferred resources within five years.
	RIPE NCC also recognizes name changes and transfers of tangible assets associated with addresses. This requires the submission of legal documentation. Utilization is verified. This may also require new agreement.

1.3.3 RECOVERING UNUSED RESOURCES

RIR	Policy	Comment
AFRINIC RIPE NCC	Valid as long as original criteria remain satisfied.	Do not actively recover unused resources, but if an organization closes, unused resources are returned to the public pool.
APNIC	Valid as long as original criteria remain satisfied.	Has policy to actively recover 'unused' networks. If an organization ceases operation, unused resources are returned to the public pool.
LACNIC	Resource allocations and assignments will remain valid as long as the objectives of exclusivity, preservation, routability, information, and the rest of the policies in general continue to be met.	Has policy to resource revocation and return. LACNIC may invalidate any allocation or assignment if it is determined that the requirements no longer exist or that the criteria set forth in the Policy Manual are no longer satisfied. The following may be considered grounds for resource revocation: - Unused or unannounced resources (where mandatory) - Failure to maintain reverse resolution records for the assigned resources. - Failure to update the allocation and assignment information on the whois database managed by LACNIC or the NIRs, as applicable. - Unauthorized transfers. - Repeated and/or continued policy violations. - Failure to comply with contractual obligations towards LACNIC or its NIRs, including non-payment and document fraud. - Organizations that have disappeared or fail to respond.
ARIN	Organizations found by ARIN to be materially out of compliance with current ARIN policy shall be requested or required to return resources as needed to bring them into (or reasonably close to) compliance.	-

1.3.4 OUT-OF-REGION USE

RIR	Policy	Comment
ARIN	Organizations may request resources for use outside the ARIN region provided that the applicant has a real and substantial connection with the ARIN region which applicant must prove (as described below) and is using the same type of resources (with a delegation lineage back to an ARIN allocation or assignment) within the ARIN service region as follows: - IPv4: At least a /22 used in region - IPv6: At least a /44 used in region - ASN: At least one ASn present on one more peering session and/or routers within the region	Details may be found in NRPM Section 9: https://www.arin.net/policy/nrpm.html#nine
AFRINIC	Any use outside the region for IPv4 resources issued in the exhaustion Phases should be solely in support of connectivity back to the AFRINIC region.	

RIR	Policy	Comment
APNIC RIPE NCC	No separate policy. For more information see §1.2 Membership	
LACNIC	No separate policy. However organizations using anycast can use space out of the region as long as they have a copy within the LACNIC region.	

1.3.5 RPKI ROUTE ORIGIN AUTHORIZATION (ROA)

RIR	Policy	Comment
ARIN AFRINIC	None	-
LACNIC	LACNIC will create specific Routing Origin Authorizations (ROAs) in the RPKI infrastructure with AS0 (AS zero) in the Origin ASN field and the list of unallocated or unassigned Internet Number Resources exclusively under LACNIC administration in the Prefixes list such ROAs. The number of the before mentioned ROAs and any other technical parameter of it will be under LACNIC discretion.	Only LACNIC would have authority to create RPKI ROAs for Internet Number Resources not yet allocated or assigned or either recovered or returned, to which LACNIC is the rightful custodian. Once an Internet Number Resource is allocated or assigned, LACNIC will invalidate ROAs that contain such resources and will issue new ROAs that do not include them, as necessary.
	Provided that this information is available, LACNIC shall include the origin ASN of the queried prefixes in its WHOIS responses.	-
	The origin ASN of the assigned block may be extracted from the RPKI repository, considering the origin specified in the ROA as the origin ASN.	
	If a block's origin ASN is not specified, the WHOIS response shall explicitly state this fact.	
RIPE NCC		
APNIC	Undelegated APNIC Address Space (IPv4 or IPv6) should not be publicly advertised by any Autonomous System. To prevent its use, APNIC will create RPKI ROAs with origin AS0 (AS zero) for all undelegated address space (marked as "Available" and "Reserved" in the delegated-apnic-extended-latest stats file) for which it is the current administrator.	While any current resource holder can create AS0 ROA for the resources they have under their account administration, only APNIC has the authority to create AS0 ROAs for APNIC address space not yet delegated to an organization. When APNIC delegates address space to an organization, APNIC will remove the prefix from the AS0 ROA.

2. IPv4

2.1 INITIAL ALLOCATION

RIR	Category	Policy
AFRINIC	Size	Minimum issuable size during the current IPv4 Exhaustion phase 2 is /24 Maximum issuable size during the current IPv4 Exhaustion phase 2 is /22.
	Eligibility	• Detailed IP addressing plan demonstrating the need for 8 months • Must show an existing efficient utilization of IP addresses from their upstream provider. • Immediate need of 50% of requested IPv4 address space for End Users
	Period	8 months
APNIC	Size	New APNIC account holders are eligible to receive a maximum /23 worth of address space from the remaining IPv4 address pool.
	Eligibility	• Membership or pay non-member fee; • Have previously used or can demonstrate immediate need for /24; • Complied with policies in managing all previous address space; • Detailed plan for use of a /23 within a year;
	Period	1 year.
ARIN	Size	ARIN will only issue future IPv4 assignments/allocations (excluding 4.4 and 4.10 space) from the ARIN Waitlist. All ISP organizations without direct assignments or allocations from ARIN qualify for an initial allocation of up to a /22, subject to ARIN's minimum allocation size. All ISP organizations without direct allocations, direct assignments, re-allocations or reassignments automatically qualify for a /24. These organizations are exempt from requirements of showing the efficient utilization of previously held IPv4 space.
	Eligibility	Organizations may qualify for a larger than a /24 by documenting how the requested allocation will be utilized within the request size.
	Period	24 months.
LACNIC	Size	Slow start: /22, otherwise /21 (can be exceeded when documented immediate need exceeds /21).
	Eligibility	For a /22: Current use or documented need of a /24; submit a detailed one-year utilization plan for a /23; agree to renumber out of the previously assigned block and return those IPv4 addresses to their ISPs no later than 12 months after the allocation of the /22; if the applicant does not already have an IPv6 block assigned by LACNIC, simultaneously request an IPv6 block in accordance with the corresponding applicable policy. or For a /21: • Provide information on assignments with prefixes equal to or shorter than /29 (more than 8 IPv4 addresses) on LACNIC's WHOIS database • Provide documentation that justifies the initial address space allocation (This must include detailed information showing how this resource will be used within a period of three, six and twelve months • If a block has already been assigned by a provider and the user wishes to keep this block to avoid renumbering, such a block may be handed over (changing the resource holder in the LACNIC whois database) provided that both parties agree. If additional address space has been justified and its distribution is possible, the recipient may decide whether they prefer to receive the block that is handed over plus an additional block

RIR	Category	Policy
		to complete the total required space, or whether they prefer to receive a single block for the total space and proceed to renumber their network. Should they choose to renumber, the block that had previously been assigned must be returned within 12 months. Exceptionally, this period may be extended by an additional 6 months if it can be justified that there was not enough time to obtain the required resources and complete the renumbering process.. • If the applicant does not already have an IPv6 block assigned by LACNIC, simultaneously request an IPv6 block in accordance with the corresponding applicable policy. In addition, depending of the multihomed or non-multihomed status of the applying ISP, the following requirements shall be considered: If the applicant is a multihomed ISP, is planning to become one, or has interconnection needs: - Efficient utilization of at least 25% of the requested address space (contiguous or not). - If the applicant is multihomed, specify the names and autonomous system numbers of its providers. - If the applicant is planning to become multihomed or needs to interconnect with other autonomous systems, describe in detail the corresponding plan and timeline (presenting signed contracts or letters of intent is recommended). If the applicant is a non-multihomed ISP: - Efficient utilization of at least 50% of the requested address space (contiguous or not).
	Period	12 months.
RIPE NCC	Size	From Wednesday, 25 November 2019, only RIPE NCC members who have never received an IPv4 allocation from the RIPE NCC are eligible to receive one /24 via a waiting list.
	Eligibility	• Membership; • LIR confirms it will make assignment(s) from the allocation.
	Period	No limit.

2.2 SUBSEQUENT ALLOCATIONS

RIR	Category	Policy	Comment
AFRINIC	Size	Minimum /24, Maximum issuable size during the current IPv4 Exhaustion phase 2 is /22.	-
	Eligibility	Demonstrate 90% efficient utilisation of all previous allocations or assignments (including those made during both the Current Phase and the Exhaustion Phase).	
	Period	8 months.	
APNIC	Size	With the implementation of abolish waiting list policy, subsequent allocations are no longer available in APNIC region.	
	Eligibility		
	Period		
ARIN	Size	/24.	-

RIR	Category	Policy	Comment
LACNIC	Eligibility	Demonstrate efficient utilization of all allocations, in aggregate, to at least 80% and at least 50% of every allocation in order to receive additional space.	
	Period	24 months.	
	Size	The policy for determining the size of additional allocations is based on the efficient utilization of space within a time frame of 12 months.	-
	Eligibility	Demonstrate 80% efficient utilization of all prior allocated space. The applicant must already have at least one IPv6 block assigned by LACNIC or, if not, must simultaneously request an initial IPv6 block in accordance with the corresponding applicable policy. If an applicant has already been assigned an IPv6 block, they shall submit to LACNIC a brief document describing their progress in the implementation of IPv6.	
	Period	12 months.	
RIPE NCC	Size	0	-Since the IPv4 Pool run out on 25 November 2019, only members who have never requested an IPv4 allocation are eligible for a /24 IPv4 allocation.
	Eligibility	Subsequent IPv4 allocations are no longer available in the RIPE NCC service region.	
	Period	-	

2.3 SUB-ALLOCATIONS

RIR	Policy	Comment
AFRINIC	LIRs may sub-allocate addresses to other organizations, which further assign addresses to End Users. LIRs also can assign address space. Sub-allocations are subject to the 'Sub-Allocation Window' procedure.	-
APNIC	LIRs may sub-allocate addresses to other organizations, which further assign addresses to end-users. LIRs also assign addresses.	-
ARIN	ISPs may sub-allocate addresses to other organizations, which further assign addresses to End Users.	-
LACNIC	RIR allocates and assigns IP blocks to organizations that can be ISPs, End Users or National Internet Registries, (NIRs - see section 7). NIRs allocate and assign IP blocks to organizations in their countries. ISPs may sub-allocate IP blocks to other ISPs or assign them to End Users.	-
RIPE NCC	LIRs may sub-allocate addresses to other organizations, which further assign addresses to End Users.	-

2.4 Assignments by RIRs (Independent/Portable)

2.4.1 GENERAL

RIR	Category	Policy	Comment
AFRINIC	Size	/24 minimum, Maximum issuable size during the current IPv4 Exhaustion phase 2 is /22.	-
	Eligibility	• Must be an AFRINIC member • Must EITHER show an existing utilization of /25 from their upstream/ISP, OR • Justify that at least 50% of the total 8 months requirement is needed immediately.	
APNIC	Size	Minimum /24, maximum /23 from the final /8 pool.	In APNIC IPv4 policy there is no distinction between allocation or assignment. Both are designated as delegations.
	Eligibility	An organization is eligible to receive an IPv4 delegation if: • it is currently multihomed, or • it is currently using at least a /24 from its upstream provider and intends to be multihomed, or • it intends to be multihomed, and advertise the prefixes within 6 months Organizations requesting a delegation under these terms must demonstrate they are able to use 25% of the requested addresses immediately and 50% within one year.	
ARIN	Size	/24, no maximum.	Known as 'end-user' assignments.
	Eligibility	Assignments will be made according to the following criterion: 50% utilization rate within 24 months. Organizations may qualify for a larger initial allocation by providing appropriate details to verify their 24-month growth projection.	
LACNIC	Size	The minimum size of an IPv4 assignment to an end user is a /24 block; the maximum size is a /20, which must be justified according to the utilization rate (section 2.3.3.4.2).	If a block had already been assigned by a provider and the user wishes to keep this block to avoid renumbering, such block may be handed over (changing the resource holder in the LACNIC whois database) provided that both parties agree. If additional address space has been justified and its assignment is possible, the recipient may decide whether they prefer to receive the block that is
	Eligibility	End Users may receive a minimum of /24 based on: 25% immediate utilization rate of the requested block. 50% utilization rate of the requested block within one year. The applicant must justify that the assigned space will be announced from the applicant's own autonomous system to at least one other autonomous system.	

RIR	Category	Policy	Comment
			handed over plus an additional block to complete the total required space, or whether they prefer to receive a single block for the total space and proceed to renumber. Should they choose to renumber, the block that had been previously assigned must be returned within 6 months.
RIPE NCC	Size	Not applicable.	From Friday, 14 September 2012 the RIPE NCC no longer allocates or assigns PI address space, except for assignments to Internet Exchange Points
	Eligibility		

2.4.2 CRITICAL INFRASTRUCTURE

RIR	Category	Policy	Comment
AFRINIC	Definition	Public IXPs and root DNS service providers.	Portable space can be obtained by submitting a request directly to AFRINIC.
	Size	/24 minimum, more if justified.	
	Eligibility	No specific criteria defined.	
APNIC	Definition	Root DNS, ccTLD, gTLD, IANA, RIRs, NIRs.	-
	Size	/24 minimum.	
	Eligibility	Delegations to critical infrastructure are available only to the actual operators of the network infrastructure performing such functions.	
ARIN	Definition	Public IXPs, Root DNS and ccTLD providers, IANA, RIRs.	-
	Size	/24 minimum.	
	Eligibility	Assignments to critical infrastructure are available only to the actual operators of the network infrastructure performing such functions.	
LACNIC	Definition	Root DNS, ccTLD, gTLD, IANA, RIRs.	
	Size	/24 minimum, /22 maximum.	

RIR	Category	Policy	Comment
	Eligibility	Assignments to critical infrastructure are available only to the actual operators of the network infrastructure performing such functions. If the applicant does not already have an IPv6 block assigned by LACNIC, simultaneously request an IPv6 block in accordance with the corresponding applicable policy. LACNIC will create an IPv4 reserve equivalent to a /15 that will be used once the address space for Phase 3 of the regional IPv4 Exhaustion Plan runs out. This will be to facilitate the deployment of infrastructure considered to be critical or essential for the operation of the Internet in the region.	Requested via the 'micro-allocations' policy.
RIPE NCC	Definition	Not applicable.	From Friday, 14 September 2012 the RIPE NCC no longer allocates or assigns address space for Anycasting ccTLD, gTLD, ENUM.
	Size	-	
	Eligibility	-	

2.4.3 INTERNET EXCHANGE POINTS (IXPS)

RIR	Category	Policy	Comment
AFRINIC	Size	/24.	Portable space can be obtained by submitting a request directly to AFRINIC.
	Eligibility	• Minimum number of three peers connected. • Open policy for anyone to connect/peer. • A /16 block is reserved for IXP peering LANs.	
APNIC	Size	/24 minimum assignment.	There is no restriction on routing prefixes assigned under this policy.
	Eligibility	Must be an IXP. The number of ISPs connected should be at least three and there must be a clear and open policy for others to join.	
ARIN	Size	/24 minimum assignment.	Requested via the 'micro-allocations' policy.
	Eligibility	Exchange point operators must provide justification for the allocation, including: connection policy, location, other participants (minimum of three total), ASN, and contact information.	
LACNIC	Size	/24 minimum, /22 maximum.	Requested via the 'micro-allocations' policy. Organizations receiving micro-assignments shall not sub-assign these IPv4 addresses.
	Eligibility	Exchange point operators must provide documentation showing that it is an IXP, list of participants, structure diagram and numbering plan. The organization shall have at least three members and an open policy for the association of new members. It must also provide a utilization plan for the following three and six months. If the applicant does not already have an IPv6 block assigned by LACNIC, simultaneously request an IPv6 block in accordance with the corresponding applicable policy.	

RIR	Category	Policy	Comment
RIPE NCC	Size	/27 minimum (on request),/24 default, /22 maximum.	A /15 will be held in reserve for exclusive use by Internet Exchange Points (IXPs).
	Eligibility	Organizations receiving space under this policy must be IXPs. Assignments will only be made to IXPs who have already applied for, or received an IPv6 assignment for their peering LAN. New IXPs will be assigned a /24. Should they require a larger assignment, they must return their current assignment (or existing PI used as an IXP peering LAN) and receive a replacement /23 or /22. After one year the utilization of the new assignment must be at least 50%, unless special circumstances are defined. On request IXPs can receive assignments down to /27.	

2.5 Assignments by LIRs (Aggregatable/Non-Portable)

2.5.1 ASSIGNMENT WINDOW

RIR	Policy	Comment
AFRINIC ARIN	Not applicable.	Assignment practices are audited by RIR staff at time of request for additional resources.
APNIC	Not applicable.	-
LACNIC	LIRs/ISPs need approval from the RIR when making assignments larger than their Assignment Window. This is the number of addresses an LIR/ISP can assign without prior approval. The RIR sets the assignment window according to the LIR's/ISP's level of experience with the policies.	
RIPE NCC	Not applicable.	LIRs can set their own rules on assignment period and utilization. They are not required to complete a forecast-based documentation of need when requesting IPv4 allocations from the RIPE NCC.

2.5.2 DYNAMIC ADDRESSING

RIR	Policy
AFRINIC APNIC	In general, dynamic assignment of IP addresses is expected on transient connections such as analogue dialup.

RIR	Policy
ARIN	
LACNIC	
RIPE NCC	

2.5.3 MOBILE TERMINALS

RIR	Policy
AFRINIC APNIC ARIN LACNIC RIPE NCC	There is no special assignment policy with respect to mobile terminals.

2.5.4 WEB HOSTING

RIR	Policy
AFRINIC APNIC ARIN LACNIC RIPE NCC	Name based web hosting is strongly encouraged where feasible.

2.5.5 NETWORK ADDRESS TRANSLATION (NAT)

RIR	Policy
AFRINIC APNIC ARIN LACNIC RIPE NCC	The use of NAT is neither encouraged nor discussed during the request process.

2.5.6 RFC1918 PRIVATE ADDRESS SPACE

RIR	Policy
AFRINIC APNIC ARIN LACNIC RIPE NCC	For private networks that will never be connected to the Internet, the requestor is made aware of the IPv4 address space reserved for use in RFC1918.

2.6. USE OF FINAL UNALLOCATED IPv4 ADDRESS SPACE

RIR	Category	Policy
AFRINIC	Size	See below.
	Eligibility	**EXHAUSTION PHASE 1** The maximum allocation size will change from /10 to /13. Allocations and assignments will be made from the final /8 until no more than a /11 of non-reserved space is available in the final /8. At this point the Exhaustion Phase 2 will begin. **EXHAUSTION PHASE 2** • The minimum allocation/assignment size will be /24, and the maximum will be /22 per allocation/assignment. • There is no explicit limit on the number of times an organization may request additional IPv4 address space during the Exhaustion Phase • The current allocation and assignment period of 12 months shall be changed to 8 months.
APNIC	Size	/24 minimum up to a maximum of /23 in total.

	Eligibility	Since APNIC reached an equivalent of a /8 remaining in the APNIC pool on 14 April 2011:
		• Each account holder (current and future) will be eligible to request and receive delegations up to a maximum of /23 from the remaining space, providing the account holder meets the following criteria for receiving an initial delegation.
		   ○ Have used a /24 from their upstream provider or demonstrate an immediate need for a /24,
		   ○ Have complied with applicable policies in managing all address space previously delegated to it (including Historical delegations), and
		   ○ Demonstrate a detailed plan for use of at least a /23 within a year
		• A /16 will be held in reserve for future uses, as yet unforeseen. If the reserved /16 remains unused by the time the rest of the remaining /8 worth of space has been allocated, the /16 will be returned to the APNIC pool for distribution under the policy described in the point above.
		
		After 4 August 2017, all returned address space from the 103/8 (Final /8) block will be returned to the 103/8 pool (not the Recovered IPv4 pool), for redistribution under Final /8 policies.

ARIN	Size	/28 minimum, /24 maximum.
	Eligibility	Allocations and assignments are from a reserved /10 and must be justified by immediate IPv6 requirements.
LACNIC	Size	/24 up to a maximum of /22.
	Eligibility	LACNIC will create a reserve of the last available space which will consist of IPv4 block post exhaustion allocated by IANA plus recovered and returned IPv4 blocks. Allocations and assignments from this pool will ONLY be done to NEW MEMBERS. IPv4 address requests classified as critical infrastructure according to the LACNIC policies in force may receive addresses, even if they have already been assigned IPv4 resources by LACNIC.LACNIC may only make IPv4 allocations or assignments greater than or equal to a /24 and smaller than or equal to /22, IPv4 address blocks larger than a /22 pending approval may only receive a /22, when this reserve is reached. No further allocations or assignments will be possible after receiving resources under this policy. Blocks or sub-blocks received under this policy may not be transferred for a period of one year. If the applicant does not already have an IPv6 address block assigned by LACNIC, it must also request an IPv6 address block in accordance with the corresponding applicable policy. The reserve created under section 11.2 is independent from the reserve created under this policy.

RIR	Category	Policy
		LACNIC will reserve an equivalent to another /10 block of IPv4 addresses for the purpose of achieving gradual exhaustion of IPv4 resources within the LACNIC region. LACNIC may only make IPv4 allocations or assignments greater than or equal to a /24 and smaller than or equal to /22 from this reserve pool. Organizations that receive IPv4 resources under the terms set forth in the following policy may receive additional IPv4 resources from LACNIC six months later. IPv4 address requests classified as critical infrastructure according to the LACNIC policies in force may receive addresses, even if they have already been assigned IPv4 resources by LACNIC. Blocks received under this policy may not be transferred as specified in paragraph 2.3.2.18 of the policy manual for a period of one year. Resources allocated by IANA to LACNIC after achieving the final /11 block for gradual exhaustion (section 11.2 of the Policy Manual), will only be allocated / assigned under the guidelines set forth on item 11.1 of the Policy Manual.
RIPE NCC	Size	/24
	Eligibility	1. Allocations made from the RIPE NCC to LIRs The RIPE NCC IPv4 pool is composed of recycled address space. On application for IPv4 resources LIRs will receive IPv4 addresses according to the following: - All allocation requests are placed on a first-come-first-served waiting list. No guarantees are given about the waiting time. - The size of the allocation made will be exactly one /24. - The sum of all allocations made to a single LIR by the RIPE NCC is limited to a maximum of 256 IPv4 addresses (a single /24). If this allocation limit has been reached or exceeded, an LIR cannot request an IPv4 allocation under this policy. 2. Assignments to Internet Exchange Point: A /15 will be held in reserve for exclusive use by Internet Exchange Points (IXPs). On application for IPv4 resources, an IXP will receive a single number resource block according to the following: - This space will be used to run an Internet Exchange Point peering LAN; other uses are forbidden. - Organizations receiving space under this policy must be Internet Exchange Points and must meet the definition as described in section two of the RIPE document "IPv6 Address Space for Internet Exchange Points". - IXPs holding other PI IPv4 space for their peering LAN (i.e. they are seeking a larger assignment), must return their old peering LAN resources back to this pool within 180 days of assignment. - New IXPs will be assigned a /24 by default. Once they require a larger assignment, they must return their current one (or existing PI used as an IXP peering LAN) and receive a replacement up to maximum of a /22. After one year, utilisation of the new assignment must be at least 50%, unless special circumstances are defined. On request or once there are no more assignments of /24 (or larger) available, assignments can be made down to /27. - IP space returned by Internet Exchange Points will be added to the reserved pool maintained for Internet Exchange Point use. - Assignments will only be made to IXPs who have already applied for, or received an IPv6 assignment for their peering LAN 3. Post-depletion Address Recycling:

RIR	Category	Policy
		This section only applies to address space that is returned to the RIPE NCC and that will not be returned to the IANA but re-issued by the RIPE NCC itself. Any address space that is returned to the RIPE NCC will be covered by the same rules as the address space intended in clause 1.

2.7 USE OF IANA IPV4 RECOVERED ADDRESS SPACE

RIR	Policy
AFRINIC	The IANA IPv4 recovered addressed space was put in the AFRINIC inventory and delegated according to existing policies
APNIC	From 02 July 2019, all allocations to APNIC of additional IPv4 addresses from the IANA IPv4 Recovered Address Space pool, will be put into the final /8 pool. The application criteria for receiving IPv4 delegation from this pool is the same as that for delegations under the 'final /8' (/103) pool.
ARIN	-
LACNIC	Resources allocated by IANA to LACNIC once item 11.2 of the Policy Manual (Allocations/Assignments for Gradual IPv4 Resource Exhaustion) becomes effective will only be allocated/assigned under the guidelines set forth on item 11.1 of the Policy Manual (Special IPv4 Allocations/Assignments Reserved for New Members).
RIPE NCC	-

3. IPv6

3.1 INITIAL ALLOCATION

RIR	Category	Policy	Comment
AFRINIC	Size	/32.	Organisations may request for a rectification of their IPv6 prefix size , backed by an IPv6 addressing plan. This is a one-time occasion.
	Eligibility	• Be an LIR; • Show a detailed plan to provide IPv6 connectivity/services to other organizations/end-users or self-owned/related departments/entities/sites in the AFRINIC region. • Show a reasonable plan for making /48 IPv6 assignments to end sites in the AFRINIC region within twelve months • The addressing space issued must be announced within twelve (12) months, and to the extent practicable, as a single aggregated prefix, so as to minimize global routing table growth. In some very special cases, the space may not be announced, however it must be duly justified. Organizations may qualify for an initial allocation larger than /32 by submitting documentation that justifies the request. In this case, the initial allocation shall be based on the space needed to serve the organization's clients, number of users, the extent of its infrastructure, hierarchical and/or geographic	

RIR	Category	Policy	Comment
		structure, infrastructure segmentation for security or other reasons, and the longevity anticipated for the initial allocation.	
	Period	Up to one year.	
APNIC	Size	/32.	Allocations consistent with the globally coordinated 'IPv6 Address Allocation and Assignment Policy' document. Organizations may qualify for an initial allocation greater than /32 by submitting documentation that reasonably justifies the request. Considers IPv4 deployment as one of the means of justifying a larger initial allocation.
	Eligibility	APNIC members with IPv4 resources managed by APNIC, but with no IPv6 resources automatically qualify for an appropriately sized IPv6 block. Organizations with no IPv4, or that wish to request more than a /32 should meet the following requirements: • Be an LIR; • Not be an end site • Plan, within two years, to provide IPv6 connectivity to other organizations/end-users to which it will make assignments; The allocation size, in case an address block bigger than the default one is requested, will be based on the number of users, the extent of the organization's infrastructure, the hierarchical and geographical structuring of the organization, the segmentation of infrastructure for security and the planned longevity of the allocation.	
	Period	For up to one year.	
ARIN	Size	/32, unless a /36 or /40 is specifically requested	The maximum allowable allocation shall be the smallest nibble-boundary aligned block that can provide an equally sized nibble-boundary aligned block to each of the requesters serving sites large enough to satisfy the needs of the requesters largest single serving site using no more than 75% of the available addresses.
	Eligibility	Organizations must meet any of the following criteria: • Already have an IPv4 ISP allocation from ARIN or one of its predecessor registries or can qualify for an IPv4 ISP allocation under current criteria. • Be multihomed for IPv6 or will immediately become multihomed for IPv6 using a valid assigned global AS number. • Provide a reasonable technical justification indicating why an allocation is necessary.	
	Period	For up to five years.	
LACNIC	Size	/32.	

RIR	Category	Policy	Comment
RIPE NCC	Eligibility	Hold an IPv4 allocation from LACNIC and announce the allocated block with the minimum possible level of disaggregation to the one that is publishing the IP blocks, or: • Be a LIR or an ISP; • Document a detailed plan for the • services and IPv6 connectivity to be offered to other organizations; • Announce the allocated block in the Internet inter-domain routing system, with the minimum possible level of disaggregation to the one that is publishing the IP blocks, within a period no longer than 12 months; • Offer IPv6 services to clients or entities owned/related (including departments and/or sites) physically located within the region covered by LACNIC within a period not longer than 24 months than 24 months.	As a special case, LACNIC has a policy for the "Second Allocation" where an Organization that holds only one IPv6 allocation can return it (within the first 6 months of getting it) in order to receive another shorter prefix allocation from LACNIC. For allocations larger than a /32, the Organization must address the considerations specified in section 4.5.1.3 of the Policy Manual.
	Period	For up to one year.	
	Size	/32 minimum	LIRs that meet the initial allocation criteria are eligible to receive an initial allocation of /32. For allocations up to /29 no additional documentation is necessary.
	Eligibility	• Be an LIR; • Have a plan for making sub-allocations to other organizations and/or End Site assignments within two years.	
	Period	For up to two years.	Allocation size larger than /29 will be based on the number of users, the extent of the organisation's infrastructure, the hierarchical and geographical structuring of the organisation, the segmentation of infrastructure for security and the planned longevity of the allocation.

3.2 SUBSEQUENT ALLOCATIONS

RIR	Category	Policy	Comment
AFRINIC	Size	• If an organization finds that the size of the initial allocation no longer meets its needs, it may submit a new addressing plan to AFRINIC. A new prefix size will be adjusted according to the new addressing plan. • When an organization has achieved an acceptable utilization of its allocated address space (based on HD ratio), it is immediately eligible to obtain an additional allocation that results in a doubling of the address space it was previously allocated.	Contiguous allocation provided if possible. RFC 3194 defines the HD-Ratio.

RIR	Category	Policy	Comment
APNIC	Eligibility	ISP/LIR must satisfy the evaluation threshold of past address utilization in terms of the number of sites in units of /48 assignments. The HD-Ratio of 0.94 is used to determine the utilization thresholds that justify the allocation of additional addresses.	Except where separate disaggregated ranges are requested for multiple discrete networks, contiguous allocation provided if possible.
	Period	Up to one year.	
	Size	Minimum size of next allocation will equal the first allocation size. More can be allocated but justification must be supplied.	
	Eligibility	ISP/LIR must satisfy the evaluation threshold of past address utilization in terms of the number of sites in units of /56 assignments. The HD-Ratio of 0.94 is used to determine the utilization thresholds that justify the allocation of additional addresses. If an organization needs more address space, it must provide documentation justifying its new requirements. The allocation size, will be based on the new needs (the number of users, the extent of the organisation's infrastructure, the hierarchical and geographical structuring of the organisation, the segmentation of infrastructure for security and the planned longevity of the allocation).	RFC 3194 defines the HD-Ratio. Guidelines on what will be considered a valid technical requirement is available at: http://www.apnic.net/criteria/ipv6-guidelines
	Period	Up to two years.	
RIPE NCC	Size	Minimum size of next allocation will equal the first allocation size. More can be allocated but justification must be supplied.	Contiguous allocation provided if possible. RFC 3194 defines the HD-Ratio.
	Eligibility	Subsequent allocation will be provided when an organisation (i.e. ISP/LIR): a) Satisfies the evaluation threshold of past address utilisation in terms of the number of sites in units of /56. To this end, the HD-Ratio [RFC 3194] is used to determine the utilisation thresholds. or b) Can justify new needs (which can't be satisfied within the previous allocation), according to the initial allocation size criteria.	
	Period	Up to two years.	
ARIN	Size	Where possible ARIN will make subsequent allocations by expanding the existing allocation. If ARIN cannot expand one or more existing allocations, ARIN shall make a new allocation based on the initial allocation criteria above. The LIR is encouraged, but not required to renumber into the new allocation over time and return any allocations no longer in use. If an LIR has already reached a /12 or more, ARIN will allocate a single additional /12 rather than continue expanding nibble boundaries.	Subsequent allocations will also be considered for deployments that cannot be accommodated by, nor were accounted for, under the initial allocation. Justification for the subsequent subnet size will be based on the plan and technology provided with a /24 being the

RIR	Category	Policy	Comment
LACNIC	Eligibility	Demonstrate at least 75% utilization of IPv6 allocations, or Demonstrate at least 90% utilization of any single serving site, or Have allocated more than 90% of total address space to serving sites.	maximum allowed for a transition technology. Justification for transitional allocations will be reviewed every 3 years and reclaimed if they are no longer in use for transitional purposes. All such allocations for transitional technology will be made from a block designated for this purpose.
	Period	Up to five years.	
	Size	Minimum size of next allocation will equal the first allocation size. More can be allocated but justification must be supplied.	Contiguous allocation provided if possible. RFC 3194 defines the HD-Ratio.
	Eligibility	ISP/LIR must satisfy the evaluation threshold of past address utilization in terms of the number of sites in units of /48 assignments. The HD-Ratio of 0.94 is used to determine the utilization thresholds that justify the allocation of additional addresses.	
	Period	-	

3.3 OTHER ALLOCATIONS

3.3.1 MICRO-ALLOCATIONS FOR INTERNAL INFRASTRUCTURE

RIR	Category	Policy	Comment
AFRINIC APNIC LACNIC RIPE NCC	Size	No policy.	-
	Eligibility	Not applicable.	
ARIN	Size	/48 minimum.	These allocations come from specific blocks reserved only for this purpose.
	Eligibility	Organizations that currently hold IPv6 allocations may apply for a micro-allocation for internal infrastructure. Applicant must provide technical justification indicating why a separate non-routed block is required. Justification must include why a sub-allocation of currently held IP space cannot be utilized.	

3.4 ASSIGNMENTS BY RIRS (INDEPENDENT/PORTABLE)

3.4.1 CRITICAL INFRASTRUCTURE

RIR	Category	Policy	Comment
AFRINIC	Definition	Root DNS operators, IXPs, RIRs	Part of the 'Provider Independent (PI)
	Size	/48 minimum.	

RIR	Category	Policy	Comment
APNIC	Eligibility	Requestor to prove they operate a critical infrastructure network.	Assignment for End-Sites' policy
	Definition	Root DNS, ccTLD, gTLD, IANA, RIRs, NIRs.	-
	Size	/32 maximum.	
	Eligibility	APNIC members with IPv4 resources assigned under the IPv4 critical infrastructure policy, but with no IPv6 resources, automatically qualify for an IPv6 /48. Members that do not hold an IPv4 critical infrastructure assignment from APNIC, that have existing IPv6 resources, or that wish to request more than /48 should meet the following requirement: • Assignments to critical infrastructure are available only to the actual operators of the network infrastructure performing such functions.	
ARIN	Definition	Root DNS, ccTLD, gTLD, IANA, RIRs.	-
	Size	/48 minimum.	
	Eligibility	Assignments to critical infrastructure are available only to the actual operators of the network infrastructure performing such functions.	
LACNIC	Definition	NAPs, Root DNS, ccTLD, gTLD, IANA, RIRs, NIRs.	-
	Size	/48 minimum, no maximum.	
	Eligibility	Micro allocation to critical Internet infrastructure operators only.	
RIPE NCC	Definition	Root DNS, Anycasting ccTLD, gTLD, ENUM.	For Anycasting assignments for ccTLD, gTLD and ENUM, the organizations are TLD managers, as recorded in the IANA's Root Zone Database and ENUM administrators, as assigned by the ITU.
	Size	For Root DNS minimum allocation size at time of request. It is up to four /48s per Anycasting ccTLD/gTLD and ENUM	
	Eligibility	Root DNS: Assignments to critical infrastructure are available only to the actual network infrastructure performing such functions. Anycasting ccTLD, gTLD, ENUM: An organization may receive up to four /48 prefixes per TLD and four /48 prefixes per ENUM. These prefixes must be used for the sole purpose of anycasting authoritative DNS servers for the stated TLD/ENUM, as described in BCP126/RFC4786.	

3.4.2 INTERNET EXCHANGE POINTS (IXPS)

RIR	Category	Policy	Comment
AFRINIC	Size	/48 minimum.	

RIR	Category	Policy	Comment
APNIC	Eligibility	• Minimum number of three peers connected • Open policy for anyone to connect/peer.	Part of the 'Provider Independent (PI) Assignment for End-Sites' policy
	Size	/48 minimum.	-
	Eligibility	APNIC members with IPv4 resources assigned under the IPv4 IXP policy, but with no IPv6 resources, automatically qualify for an IPv6 /48. Members that do not hold an IPv4 critical infrastructure assignment from APNIC, that have existing IPv6 resources, or that wish to request more than /48 should meet the following requirement: • The IXP must have a clear and open policy for others to join and must have at least three members.	-
LACNIC	Size	/48 minimum, no maximum.	-
	Eligibility	The IXP must have a clear and open policy for others to join and must have at least three members. It must also provide documentation showing that it is an IXP, list of participants, structure diagram, numbering plan and a utilization plan for the following three and six months.	
ARIN	Size	/48 minimum.	-
	Eligibility	Exchange point operators must provide justification for the allocation, including: connection policy, location, other participants (minimum of two total), ASN, and contact information.	
RIPE NCC	Size	/64 or /48.	-
	Eligibility	The IXP must have a clear and open policy for others to join and must have at least three members.	

3.4.3 END USERS

RIR	Category	Policy	Comment
AFRINIC	Size	/48 minimum	-
	Eligibility	• Must not be an LIR. • Must justify the number of end-sites and the need for the IPv6 PI address space. • Must deploy the IPv6 provider independent address space at each of the end-sites, for which addresses are obtained, within twelve (12) months. • If the space issued under this policy is to be announced, to the extent practicable, the organization should aggregate any announcements of prefixes so as to minimize global routing table growth.	
APNIC	Size	/48 minimum.	

RIR	Category	Policy	Comment
ARIN	Eligibility	APNIC members with IPv4 resources assigned under the IPv4 multihoming policy, but with no IPv6 resources, automatically qualify for an IPv6 /48. Members that do not hold an IPv4 multihoming assignment from APNIC, that have existing IPv6 resources, or that wish to request more than /48 should meet the following requirement: • An organization is currently multihomed or plans to be multihomed; • Organizations are eligible for a Provider Independent delegation if they are able to demonstrate a valid reason that an assignment from their ISP, or LIR, is not suitable.	These assignments come from a distinctly identified prefix.
	Size	/48 minimum.	The initial assignment size is determined by the number of sites. Nibble boundary assignments are available.
	Eligibility	Meet one of the following requirements: • Have a previously justified IPv4 end-user assignment from ARIN or one of its predecessor registries • Currently be IPv6 Multihomed or have a plan to immediately become IPv6 Multihomed using an assigned valid global AS number • Have a network that will makes active use of a minimum of 2000 IPv6 addresses within 12 months • Have a network that will make active use of a minimum of 200 /64 subnets within 12 months • Have a contiguous network that has a minimum of 13 active sites within 12 months, • Provide a reasonable technical justification indicating why IPv6 addresses from an ISP or other LIR are unsuitable. or: • Be a Community Network that will immediately have at least 100 simultaneous users and a demonstrated plan to have at least 200 simultaneous users within one year.	
LACNIC	Size	/48 minimum, no maximum	
	Eligibility	Automatic if requestor has IPv4 assignments, or: • Not been an LIR or ISP. • In case of announcing the assignment on the Internet inter-domain routing system, the receiving organization shall announce the block maintaining de-aggregation to a minimum in accordance with the announcing organization's needs, • Provide detailed information showing how the requested block will be used within the following three, six and twelve months. • Submit addressing plans for at least a year.	
RIPE NCC	Size	/48 minimum.	Assignments will be made from a separate 'designated block' to facilitate filtering practices.
	Eligibility	Meet the requirements of the policies described in the document entitled "Contractual Requirements for Provider Independent Resources Holders in the RIPE NCC Service Region"	

3.5 ASSIGNMENTS BY LIRS (AGGREGATABLE/NON-PORTABLE)

3.5.1 DYNAMIC ADDRESSING

RIR	Policy	Comment
AFRINIC APNIC ARIN LACNIC RIPE NCC	There is currently no specific policy related to dynamic addressing.	See RFC3177.

3.5.2 MOBILE TERMINALS

RIR	Policy
AFRINIC APNIC ARIN LACNIC RIPE NCC	There is no special assignment policy with respect to mobile terminals.

3.5.3 WEB HOSTING

RIR	Policy
AFRINIC APNIC ARIN LACNIC RIPE NCC	There is no recommendation for IPv6 assignments in support of web hosting at this time.

3.5.4 NETWORK ADDRESS TRANSLATION (NAT)

RIR	Policy
AFRINIC APNIC ARIN LACNIC RIPE NCC	The use of NAT is neither encouraged nor discussed during the request process.

4. AUTONOMOUS SYSTEM NUMBERS (ASNs)

4.1 ALLOCATIONS

RIR	Policy
APNIC	Blocks of ASNs are allocated to NIRs for further distribution to their members.

RIR	Policy
AFRINIC **ARIN** **LACNIC** **RIPE NCC**	Not applicable.

4.2 ASSIGNMENTS

RIR	Category	Policy
AFRINIC **ARIN** **RIPE NCC**	Eligibility	An organization must be an AFRINIC member and fulfill any of these requirements : • Interconnect (including peering) with more than one AS. • Show a unique routing policy or demonstrate a technical need for a coordinated globally unique ASN. • An organization will also be eligible if it can demonstrate that it will meet the above criteria upon receiving an ASN (or within the following six months).
APNIC	Eligibility	ASNs may be obtained directly from APNIC as a member or non-member account holder. The ASN obtained directly is portable. ASNs may also be obtained indirectly, through a LIR who 'sponsors' the request. In this event, the ASN is non-portable. Criteria need to be met in both cases, that is: An organization is eligible if it: • it is currently multihomed, or has the need to interconnect with other AS. An organization will also be eligible if it can demonstrate that it will meet the above criteria upon receiving an ASN (or within a reasonably short time thereafter). Requests for ASNs under these criteria will be evaluated using the guidelines described in RFC1930.
LACNIC	Eligibility	LACNIC shall allocate Autonomous System Numbers to those organizations that meet the following requirements: • The organization must have the need to interconnect with other independent Autonomous Systems at the time of the application, or be planning to interconnect within a period of no more than six (6) month as of the moment of the application. After this period, LACNIC may revoke the assigned ASN if it has not been used. • Detail the applicant's routing policy, specifying the ASNs with which the organization will interconnect and the IP addresses that will be announced through the requested ASN.

4.2.1 32-BIT ASNS

RIR	Policy
AFRINIC **ARIN** **RIPE NCC**	From 1 January 2007 the RIR will process applications that specifically request 32-bit only AS Numbers (AS numbers that cannot be represented with 16 bits) and assign such AS Numbers as requested by the applicant. In the absence of any specific request for a 32-bit only AS Number, the RIR will assign a 16-bit AS Number. From 1 January 2009 RIR will process applications that specifically request 16-bit AS Numbers and assign such AS Numbers as requested by the applicant. In the absence of any specific request for a 16-bit AS Number, the RIR will assign a 32-bit only AS Number. From 1 January 2010 the RIR will cease to make any distinction between 16-bit AS Numbers and 32-bit only AS Numbers, and will operate AS Number assignments from an undifferentiated 32-bit AS Number allocation pool.

RIR	Policy
APNIC	From 1 January 2010, APNIC ceased to make any distinction between two-byte only AS numbers and four-byte only AS numbers, and operates AS number assignments from an undifferentiated four-byte AS number pool.
LACNIC	From 1 January 2007 the RIR will process applications that specifically request 32-bit only AS Numbers (AS numbers that cannot be represented with 16 bits) and assign such AS Numbers as requested by the applicant. In the absence of any specific request for a 32-bit only AS Number, the RIR will assign a 16-bit AS Number. From 1 January 2009 RIR will process applications that specifically request 16-bit AS Numbers and assign such AS Numbers as requested by the applicant. In the absence of any specific request for a 16-bit AS Number, the RIR will assign a 32-bit only AS Number. From 1 January 2010, LACNIC shall allocate 32-bit AS numbers by default. 16-bit AS numbers shall be allocated, if available, in response to applications specifically requesting said resource and that duly justify the technical reasons why a 32-bit AS number would not be appropriate for its needs.

5. DATABASE - REGISTRATION

RIR	Category	Policy	Comment
AFRINIC	Modification	LIRs are required to register all assignments and sub-allocations.	-
	Entry	Can update all assignment and sub-allocation registrations (protection mechanism available). Org object can be created on the whois database with status set to 'Other'.	
APNIC	Modification	LIRs required to register all assignments and sub-allocations. Registrations will be stored privately by APNIC unless the custodian wishes them to be made publicly available in the APNIC Whois Database.	Not required to register infrastructure assignments. From 30 June 2019, all IRT contacts must be periodiacally validated. Failure to validate will result in marking that IRT object as invalid and members may have limited access to MyAPNIC portal.
	Entry	Can update all assignment and sub-allocation registrations (protection mechanism available). Incident Response Team reference mandatory for all IP address and AS number objects in the APNIC Whois Database to assist in reporting network abuse.	
ARIN	Modification	Downstream reassignments and reallocations are reported, showing hierarchy and End User assignments. Reassignment information for residential customers need not contain the customer's name nor street address.	Not required to register infrastructure assignments.
	Entry	Can modify all parent data except "org name" and address range. Can modify all child data.	

RIR	Category	Policy	Comment
LACNIC	Modification	Downstream reassignments and reallocations are reported, showing hierarchy and End User assignments.	Not required to register infrastructure assignments.
	Entry	Can modify all parent data except "org name" and address range. Can modify all child data. Users have to authenticate themselves in LACNIC web system.	
RIPE NCC	Modification	LIRs are required to register all assignments and sub-allocations.	-
	Entry	Can update all assignment and sub-allocation registrations (protection mechanism available).	

6. ABUSE CONTACT

RIR	Policy	Comment
AFRINIC		
APNIC		
ARIN	When required, organization Information must include at a minimum: Legal name, street address, city, state, zip code equivalent and at least one valid technical and one valid abuse POC. Each POC shall be designated by the organization and must include at least a verifiable email address and phone number.	ARIN is required to contact each, Admin, Tech, NOC, and Abuse POC annually for verification.
LACNIC		
RIPE NCC	The abuse mailbox email address must be valid and able to receive manual and automatic messages.	The RIPE NCC will validate if the "abuse-mailbox:" at least every six months. If the validation fails the RIPE NCC will follow-up in compliance with the relevant RIPE Policies and RIPE NCC procedures.

7. REVERSE DNS

RIR	Policy	Comment
AFRINIC	• Only make delegations on 8-bit boundaries (/16 or /24). Multiple delegations may be requested to cover CIDR prefixes for blocks bigger than a /24. • Reverse DNS services are denied to LIRs that have not registered at least one customer (or LIR use) assignment into the whois database • Lame RDNS delegations are not permitted and are subject to a removal process.	Members may only obtain rDNS if address space issued (assigned or sub-allocated) is recorded in the AFRINIC whois Database.
APNIC	Provides reverse DNS based on domain objects in the APNIC database. If the delegation is /16 or larger then the authority for the reverse zone, it is delegated to the custodian of the address space.	Policy for "lame delegations" checking established and enforced.
ARIN	Not applicable.	ARIN's delegation management tools enable you to individually manage each reverse delegation within both IPv4 and IPv6 networks. Delegations can be managed in IPv4 on byte boundaries (/8, /16 or /24's), and IPv6 networks can be managed on nibble boundaries (every 4 bits of the IPv6 address).
ARIN	Provides reverse DNS for all allocations and assignments in the database with the following exception: For all /16 or larger blocks ARIN delegates reverse DNS authority to the registrant.	-
LACNIC	Provides reverse DNS for all parent blocks. Does not provide reverse DNS for reassignments on child blocks if the parent is /16 or greater.	Policy for "lame delegations" checking established and enforced
RIPE NCC	Provides reverse DNS delegation on request. Deploys DNSSEC on all the reverse zones.	RIPE NCC verifies RFC1912 compliance.

8. NATIONAL INTERNET REGISTRIES (NIRs)

RIR	Policy
AFRINIC ARIN RIPE NCC	Not applicable.
APNIC	NIRs operate in South Korea, China, Japan, Taiwan, Indonesia, India and Vietnam. They are not ISPs. They allocate to their members within their economy following APNIC policies. Organizations within those NIR economies may go to either the relevant NIR or APNIC.
LACNIC	NIRs operate in Brazil and Mexico. They are not ISPs. They allocate to their members following LACNIC policies. NIRs are responsible for providing services within their country.

9. Policy Development

RIR	Policy
AFRINIC APNIC ARIN LACNIC RIPE NCC	The policy development process is consensus based, open to anyone to participate and is transparent in archiving all decisions and policies so that they are publicly accessible.

10. Internet Experiments

RIR	Policy
AFRINIC APNIC	Allocations and assignments of Internet resources for Internet experiments are available. Such allocations or assignments are made for one year after which they must be returned. They are intended to support experimental Internet activities. Results of experiments must be made freely available to the public.
RIPE NCC	RIPE NCC uses a reserved pool of Internet resources for temporary assignment. For conferences and other events of short, fixed duration, the maximum assignment time period will be one month longer than the scheduled length of the conference/event but no longer than two months in any case. The assignment time limits for longer-term projects and research purposes are up to six calendars months. In the case where an End User requires number resources for research purposes, and where the research project details are made public upon registration End User commits to making public the results of their research project free of charge and free from disclosure constraints, then the requested number resources may be issued for a period of up to one calendar year.
ARIN	ARIN will allocate Numbering Resources to entities requiring temporary Numbering Resources for a fixed period of time under the terms of recognized experimental activity.
LACNIC	LACNIC shall make experimental allocations with the aim of encouraging research and development within the region of Latin America and the Caribbean. The experimental allocation shall be for a period of one year, renewable for a period of the same duration, with no specified maximum. The results of the experiment must be published on a public website.

11. Documentation Prefix

RIR	Policy
AFRINIC APNIC ARIN LACNIC RIPE NCC	No policy.