

1.0 Definition

Utilisation: the proportion of IP Address resources that have been used by either an End-User or LIR resource member on its network.

2.0 Mechanism for the update of utilisation

- a) LIRs are required to comply with Section **5.5.1.11 Validity of an assignment** of the Consolidated Policy Manual.
- b) LIR members register their usage in the WHOIS database with status set to Assigned PA, Sub-ALLOCATED PA or Assigned Anycast for IPv4; Assigned PA or Assigned Anycast for IPv6.
- c) The Myafrinic portal tracks these registrations and calculates the usage percentage of each prefix and displays it to the Resource Member.

The formula used for IPv4 is as below:

Utilisation percentage = (Sum of unique address space covered by eligible child objects under a parent resource ÷ Total address space of the parent resource) × 100

For IPv6, the same logic applies, but the calculation is based on HD-Ratio (HD) and Utilisation Threshold (T), expressed as a number of individual /48 prefixes to be allocated from IPv6 prefix P, which can be calculated as:

$$T = 2 ((48-P)*HD)$$

- d) IP addresses carved out of a delegated allocated to a member and dedicated to anycast deployments are considered as fully utilised in accordance with Section 12 of the CPM.
- e) End Users are able to only use the IPs on their internal networks and therefore they document their usage outside myafrinic portal, e.g in a spreadsheet .

3.0 Validation of IP Address Resource Usage

- a) Hostmasters will validate the IP address usage either in a review or when evaluating an additional prefix request.
- b) Hostmasters are also expected to use their technical and analytical skills while conducting the validation
- c) A structured mechanism has been put in place and takes into account member category and resource type and respective applicable policies
- d) In the case of LIRs, the usage registered on the WHOIS database is used as a baseline, backed by evidence of the usage. End Users are asked to provide a breakdown of the usage of their assigned IP resources. The granularity of the registrations/usage are also considered and form a basis for the next step in the validation process.
- e) Different operating models such as MNOs, Retail ISPs, Enterprise ISPs, Cloud Service providers or enterprise networks all have different IP provisioning and Internet breakout mechanisms; hence, evidence that is requested aligns with a particular operating

model. This evidence from respective IP provisioning tools enables detailed analysis to determine that appropriate utilisation thresholds have been reached.