**IRR Cheat Sheet**

## Key Acronyms:

| Inet(6)num | IPv4 or IPv6 block |
|---|---|
| Aut-num | Autonomous System Number (ASN) |
| Mnt-by | Maintainer |

## Key Definitions:

| Maintainer | Used to protect objects and associated with authentication either password, x509 or PGP key. |
|---|---|
| Route(6) | Describes routing information about specific IPv4(6) range intended to be advertised to Internet. |
| AS-Set | Describes set/collection of Aut-num(ASNs) which usually identifies the origin of all the prefixes that will be advertised by the organisation's ASN and the ASN's you provide transit to. |

## Pre – Requisites:

| Inetnum or Inet(6)num | The IPv4(6) prefix to be specified in the route object must be an exact match or a more specific prefix of the prefix delegated by AFRINIC |
|---|---|
| Aut-num | The ASN that shall originate the IPv4 or IPv6 prefix. ASN delegated by any RIR and registered in one RIR whois database can be used. |
| Maintainer | The maintainer referenced as the mnt-lower or mnt-routes in the IP resource objects (inetnum or inet6num) |

## Guides before route creation

| Prefix(es) | Ensure that an inetnum/inet6num object exists in the AFRINIC WHOIS database This can be queried on http://whois.afrinic.net. If the mnt-lower or mnt-routes is AFRINIC-HM-MNT, please contact us at irr@afrinic.net. |
|---|---|
| Aut-num | Get the autonomous system number(ASN) that shall originate the IPv4 or IPv6 prefix |
| Maintainer | The plain text password should be provided for the 'mnt-lower' or 'mnt-routes' inorder to allow the creation of the route object. If you do not currently hold the password; follow the steps[1], and send the encrypted password to irr@afrinic.net. |

[1]
Go to https://afrinic.net/whois/utilities - crypt
Input the new password you wish to use for the maintainer you mentioned
Click on "Generate hash".
Send us the encrypted hash that will be generated. It will be used to reset your Maintainer object.
NB: Password requests are accepted only from registered contacts

| Example 1: Route object for 196.192.48.0/20 with AS327800 as the origin | | Go to whois.afrinic.net > create > route object |
|---|---|---|
| **Step 1** | Query the inetnum on whois | route: 196.192.48.0/20<br>descr: Route Object Example 1<br>origin: AS327800<br>mnt-by: EXAMPLE-MNT<br>changed: email@example.com (your e-mail ID)<br>source: AFRINIC |
| **Step 2** | Get the mnt-lower/mnt-route | |
| **Step 3** | Know the ASN | |
| **Step 4** | Build your route object | **Password: <plain text of EXAMPLE-MNT>** |

| Example 2: Route object for 2c0f:f790::/32 with AS327800 as the origin | | Go to whois.afrinic.net > create > route object |
|---|---|---|
| **Step 1** | Query the inet(6)num on whois | route6: 2c0f:f790::/32<br>descr: Example Route 6 Object<br>origin: AS327800<br>mnt-by: EXAMPLE-MNT<br>changed: email@example.com (your e-mail ID)<br>source: AFRINIC |
| **Step 2** | Get the mnt-lower/mnt-route | |
| **Step 3** | Know the ASN | |
| **Step 4** | Build your route object | **Password: <plain text of EXAMPLE-MNT>** |

| Example 3: Create AS-SET | Go to whois.afrinic.net > create > AS-SET | |
|---|---|---|
| as-set: as-example<br>descr: an as-set example<br>tech-c: your nic-hdl<br>admin-c: your nic-hdl<br>mnt-by: your-mnt<br>changed: email@example.com<br>source: AFRINIC | as-set | Defines the name of the set which must start with 'as-'. It can be a hierarchical name with components separated by a colon (':'). At least one component must be an as-set name. |
| | descr | A short description related to the object |
| | tech-c/admin-c | NIC Handle, of either a role or person object. This contact may be a single person, or it may be a role within the organisation |
| **Password: <plain text of your-MNT>** | mnt-by | Specifies the maintainer of your organization to protect the route object. In most cases the "mnt-by" will be same as the "mnt-lower" in the inetnum/inet6num and the "mnt-routes" in the aut-num object |

Complete AFRINIC IRR Guideline on
**https://www.afrinic.net/internet-routing-registry#guide or http://bit.ly/irr-afrinic**