PrefixLen & ExtRef

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Two Drafts

draft-gasser-opsawg-prefix-lengths

Like GeoFeed for publishing an Op's customer assignment size

draft-ymbk-opsawg-rpsl-extref

Generalizing these external references

Initial Motivation

- Applications want to know the width of IP space used by a 'customer'
  - Blocklisting/throttling
  - Rate limiting/CAPTCHAs
  - etc.
- It benefits ISPs to publish this as it benefits our customers by reducing collateral damage

PrefixLen CSV File

`2001:db8::/32,56`

`192.0.2.0/24,32`

Publish the **width** of allocations within a prefix

inetnum: Hack

inetnum: 192.0.2.0/24   # example
prefixlen: https://my.com/prefixlen

or, in the interim

inetnum: 192.0.2.0/24   # example
remarks: Prefixlen https://my.com/prefixlen

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CGNAT

The 'consumer' of the PrefixLen data (a provider of services) needs to know that there is high granularity and mobility

192.0.0.0/20,36

The CGNAT uses 192.0.0.0/20 and 16 customers share each /32

Proliferation!

Oops! Now we have

```
inetnum: 192.0.2.0/24
geofeed: https://my.com/geofeed
prefixlen: https://my.com/prefixlen
```

There will be more!! They will breed!!

So Generalize!

inet6num: 2001:db8::/32

extref: Geofeed https://my.com/geofeed

extref: Prefixlen https://my.com/prefixlen

whois -> RDAP

RIRs want to move from whois to RDAP. So the inetnum: hacks will also have to migrate. RIRs already have GeoFeed in test.

This will be a long transition. We just need to be aware of it.

```
{
    "objectClassName": "ip network",
    "startAddress": "192.0.2.0",
    "endAddress": "192.0.2.127",

    ...
    "links": [
    {

        "href":  "https://rdap.example.net/ip/192.0.2.0/25",
        "rel":   "self",
        "type":  "application/rdap+json",
        "value": "https://rdap.example.net/ip/192.0.2.0/25"
    },
    {

        "href":  "https://rdap.example.net/ip/192.0.2.0/24",
        "rel":   "up",
        "type":  "application/rdap+json",
        "value": "https://rdap.example.net/ip/192.0.2.0/25"
    },
    ...
    ],
    ...
}
```

Other Attributes

- "type" of customer (residential / business / event / other)

- last mile properties - e.g: rough indication of latency and BW

- publisher extensible data

These smell like infinite rat holes to what end?

But cool if someone come up with a short list with <u>rigorous</u> definitions

B Ark

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