An RDAP Extension for Geofeed Data

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Background on Registration Data Access Protocol (RDAP)

- WHOIS is ancient
- We all know the issues with this protocol
- Many attempts in the past to create a replacement – whois++, RWhois, IRIS, ARIN’s Whois-RWS, etc
- Finally have one that looks like it will stick
- RDAP – specified namely in: RFC 7481, RFC 9082, RFC 9083, and RFC 9224

RDAP with Domain Registries

- WHOIS is mandated by ICANN for registrars/registries
- Now moving from WHOIS to RDAP via contract
- Three phases
  - 07 August 2023: Global Amendment effective date, Ramp-Up Period begins
  - 03 February 2024: Ramp-Up Period ends
  - 28 January 2025: WHOIS Sunset Date

https://www.icann.org/resources/pages/global-amendment-2023-en/#news

RDAP with RIR’s

- All the RIR’s have deployed RDAP services
- Surveyed all implementations, discovered differences, and a way forward
- Resulted in NRO RDAP profile specification
  - https://bitbucket.org/nroecg/nro-rdap-profile/raw/v1/nro-rdap-profile.txt
- All the RIR’s have agreed to it – four of the five RIR’s are now in compliance.
- The remaining RIR will complete in Q1 of 2024

Good momentum going forward for RDAP as a replacement for WHOIS

Background on GeoFeed

- RFCs 8805 and 9092 (and its update I-D) detail the IP geolocation feed (aka geofeed) concept
  - Reduces network latency between enterprise networks and Internet Service Providers (ISPs)
  - Localizes internet services by region
- RFC 9092 hints at using RDAP for accessing geofeed data through the `remarks` field
- This proposal defines a new RDAP extension for geofeed data to afford a purposed RDAP field instead

Proposal

- Extends the IP Network object class to include a new geofeed member
- Elided example of an IP Network object with `geofeedv1` extension and `geofeedv1_geofeed` member:

```
{
  "rdapConformance" : [ ... , "geofeedv1" ],
  "objectClassName" : "ip network",
  "handle" : "XYZ",
  ...
  "geofeedv1_geofeed" : "https:example.net/geofeed"
}
```

- Includes privacy and security considerations

Requested Adoption in the IETF regext working group

- RFC 9092 authors support the proposal
- RIR communities, including ISPs and enterprises, asking for it
- Presented at IETF 118 to help standardize geofeed data access through RDAP
- Call for adoption sent to the regext mailing list on November 20

References

- Finding and Using Geofeed Data — https://datatracker.ietf.org/doc/draft-ietf-opsawg-9092-update/
- An RDAP Extension for Geofeed Data — https://datatracker.ietf.org/doc/draft-jasdips-regext-rdap-geofeed/