Efficient RDAP Referrals

draft-ietf-regext-rdap-referrals

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IETF 124, Montreal

Document Status

- Document adopted by the Working Group (thanks again!)
- Lively discussion about how to actually implement registrar referrals!
- I will present the options and outline their pros and cons.

Option #1: HEAD (current approach)

Example:

```
> HEAD /domain/example.com HTTP/1.1
>
< HTTP/1.1 200
< Link: <https://rdap.registrar.example/domain/example.com>;
    title="URL of Sponsoring Registrar's RDAP Record";
    rel="related";
    type="application/rdap+json"
```

Pros:

- Small on the wire.
- Multiple links can be included in the response.

Cons:

- To comply with HTTP spec, “Link” headers must also be present on GET responses.
- Requires parsing of the “Link” header.

Option #2: Partial Response (based on RFC 8982)

Example:

```
> GET /domain/example.com?fieldSet=relatedLinks HTTP/1.1
>
< HTTP/1.1 200
< Content-Type: application/rdap+json
<
< {
<   “objectClassName”: “domain”,
<   “rdapConformance”: [
<     “rdap_level_0”,
<     “subsetting”,
<     “rdap_referral”,
<   ],
<   “links”: [
<     {
<       “value”:
<         “https://rdap.example.com/domain/example.com”,
<       “rel”: “related”,
<       “type”: “application/rdap+json”,
<       “href”:
<         “https://rdap.registrar.example/domain/example.com”
<     }
<   ]
< }
```

Pros:

- Reuses approach from the Partial Response RFC.

Cons:

- Response is bigger than in the other approaches.
- The “fieldSet” parameter is not currently extensible, requires an update to that RFC, and (maybe) an IANA registry.
- Requires parsing JSON in the body of the payload.

Option #3: Path Segment Redirection

Example:

```
> GET /domain/relsearch/related/example.com HTTP/1.1
>
< HTTP/1.1 302
< Location: https://rdap.registrar.example/domain/example.com
```

Pros:

- Very small on the wire.
- Does not require parsing of the Link header, naive HTTP user agents will just follow the redirect.

Cons:

- Only a single referral URL can appear in the response (“Accept” header may help).

Our View

- Option #3 (Path Segment Redirect) seems the optimal approach: It's small, lightweight, and fast. The only question is about multiple links with the same relation.
- Asking for input today before submitting an updated version, which switches to this approach.

Discussion

Thanks!