Structured Data for DNS Access Denied Error Page

draft-wing-dnsop-structured-dns-error-page-00

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D. Wing (Citrix)
T. Reddy (McAfee)
N. Cook (Open-Xchange)
M. Boucadair (Orange)
Purpose

- Parsable JSON for user and IT troubleshooting
  DNS filtering
- Client displays/logs the JSON with its own UI
- Headless devices (IoT)

- Companion to draft-reddy-dnsop-error-page
Design

• Accommodates multiple filtering services

• Protocol permits IT organization to occlude, or pass along, details from upstream DNS filters
  – Correcting upstream filters often requires IT help

[Diagram showing client, IT-operated DNS filter, Commercial DNS filter, with arrows indicating flow and labels: Filters malware, Filters by court orders]
Example JSON

```json
{
   "responsible": [ {
      "complaint": [ 
         "mailto:helpdesk@example.net?subject=\"incorrect filtering of example.org at 1621902483\"",
         "https://mistakes.example.net?domain=example.org?time=1621902483",
         "tel:+18305551212"
      ],
      "justification": "malware present for 23 days",
      "name": "example.net Filtering Service",
      "regulation": "https://laws.example.net?country=atlantis"
   } ]
}
```
Deployment Considerations

• Filtering comes and goes
  – Avoid “works fine now” frustration

• URIs should detail ‘when’ or ‘why’
  – Time of filtering, cause of filtering, encrypted detailed reason, ...

• Implementation specific
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- Move forward
- Changes