Stop ANYthing

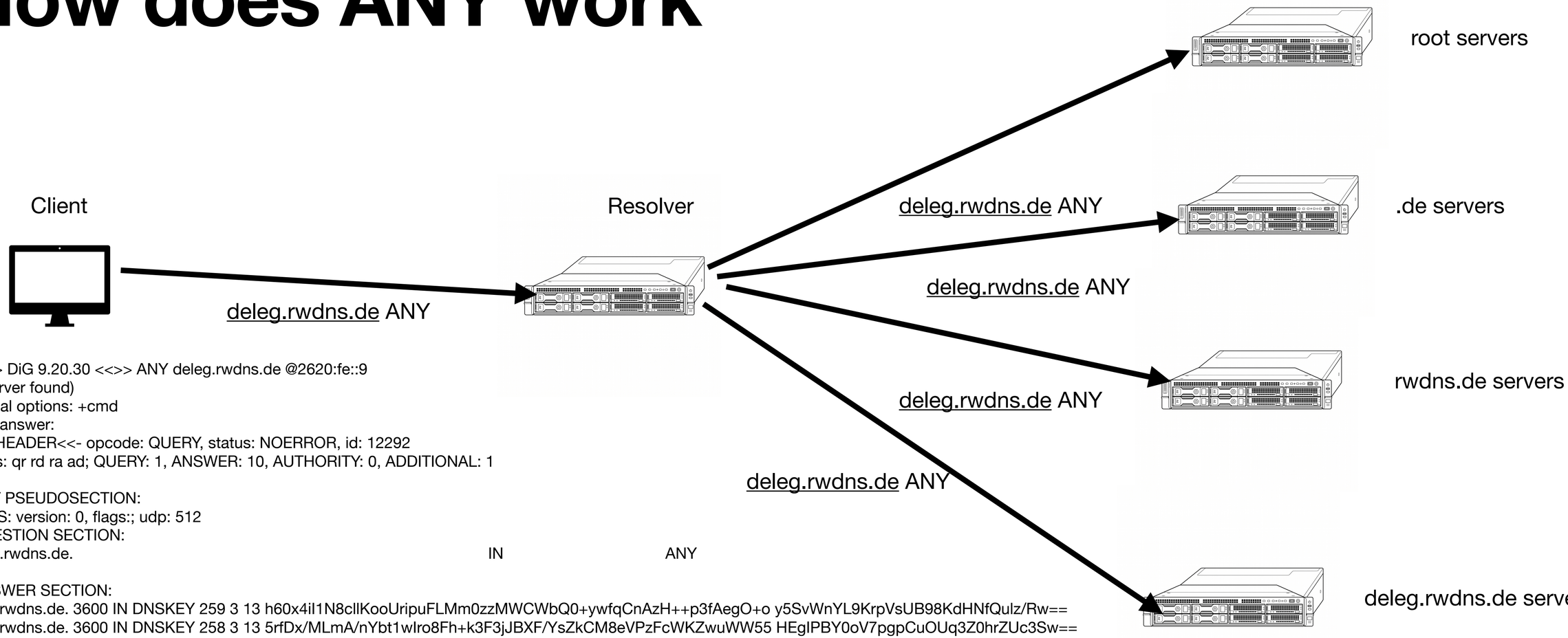
Musings on a special query type

Ralf Weber 2026-11-10

I like ANY

- Great tool for debugging
  - dig ANY deleg.rwdns.de @2620:fe::9
- I ran unmodified qmail until 2008
  - It did ANY instead of MX for mail exchanger lookups
- When amplification became a thing in the 2010s I made sure our security products didn’t block ANY outright

How does ANY work




```
; <<>> DiG 9.20.30 <<>> ANY deleg.rwdns.de @2620:fe::9
; (1 server found)
;; global options: +cmd
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 12292
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 10, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; QUESTION SECTION:
;deleg.rwdns.de.                                IN                      ANY

;; ANSWER SECTION:
deleg.rwdns.de. 3600 IN DNSKEY 259 3 13 h60x4iI1N8cllKooUripuFLMm0zzMWCWbQ0+ywfqCnAzH++p3fAegO+o y5SvWnYL9KrpVsUB98KdHNfQulz/Rw==
deleg.rwdns.de. 3600 IN DNSKEY 258 3 13 5rfDx/MLmA/nYbt1wIro8Fh+k3F3jJBXF/YsZkCM8eVPzFcWKZwuWW55 HEgIPBY0oV7pgpCuOUq3Z0hrZUc3Sw==
deleg.rwdns.de. 2560 IN NSEC ans1.deleg.rwdns.de. NS SOA RRSIG NSEC DNSKEY
deleg.rwdns.de. 3600 IN SOA ns0.deleg.rwdns.de. hostmaster.guxx.net. 1595431900 16384 2048 1048576 2560
deleg.rwdns.de. 3600 IN NS ns0.deleg.rwdns.de.
deleg.rwdns.de. 3600 IN RRSIG NS 13 3 3600 20261112155238 20261105124738 35305 deleg.rwdns.de. ZbKa4plx//WF8Op9b/V/YdX3TJdRJxuKme67OxfcbhxxRDE                                qNo7sWDUt561csnA==
deleg.rwdns.de. 3600 IN RRSIG SOA 13 3 3600 20261112155238 20261105124738 35305 deleg.rwdns.de. AkJx/0PrntuJcBOtpg2Biiaiu0mgyt6BvBliGs599zICUmaOKg9h7zLm Z/+vt1qtZOkNVk8tU1CYxbuoyial3w==
deleg.rwdns.de. 2560 IN RRSIG NSEC 13 3 2560 20261112155238 20261105124738 35305 deleg.rwdns.de. Oqgc/W10cjvF9DL5OHYJDJMIk3m5WV8nlYOZgFKiDMUpKaUep8Bu4Vce aVld+MAYeDm3I0l5njua8pLk37/khg==
deleg.rwdns.de. 3600 IN RRSIG DNSKEY 13 3 3600 20270226132320 20251023085238 44308 deleg.rwdns.de. 2pYpb//ecOfsRoayaxuvisp35HyfpDo318ba6lqjQd5HDtI6sb6zBjHx m75qPiNXLyD87UrYUIMYI/ZuUyDrZg==
deleg.rwdns.de. 3600 IN RRSIG DNSKEY 13 3 3600 20261112155238 20261105124738 35305 deleg.rwdns.de. D81eWtiX5E2uyUC+hoC70rsr9F6zXs9tMXOH4fzJwW07SytNp0ulnar1 HCiJvKcrEyDZcAB19jq2t0mZDv0k+Q==
```

And then this happened

```
;; QUESTION SECTION:
;example.net.                           IN          ANY

;; AUTHORITY SECTION:
net.                                    172800      IN          NS          m.gtld-servers.net.
net.                                    172800      IN          NS          k.gtld-servers.net.
net.                                    172800      IN          NS          b.gtld-servers.net.
net.                                    172800      IN          NS          f.gtld-servers.net.
net.                                    172800      IN          NS          d.gtld-servers.net.
net.                                    172800      IN          NS          h.gtld-servers.net.
net.                                    172800      IN          NS          j.gtld-servers.net.
net.                                    172800      IN          NS          l.gtld-servers.net.
net.                                    172800      IN          NS          a.gtld-servers.net.
net.                                    172800      IN          NS          e.gtld-servers.net.
net.                                    172800      IN          NS          c.gtld-servers.net.
net.                                    172800      IN          NS          g.gtld-servers.net.
net.                                    172800      IN          NS          i.gtld-servers.net.

;; ADDITIONAL SECTION:
```

What….

- This means nothing under .net resolves, which pretty much means nothing works
- This happened twice
  - With reputable root server operators
  - Maybe implementing RFC8482
- ANY already is a special case in all of our DNS software
- We should make it so special that it is unusable

Wouldn’t this break the internet

- I don’t know. Ask Cloudflare:

```
; <<>> DiG 9.20.30 <<>> ANY deleg.rwdns.de @2606:4700:4700::1111
; (1 server found)
;; global options: +cmd
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOTIMP, id: 14823
;; flags: qr rd ra; QUERY: 1, ANSWER: 0, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1232
; EDE: 21 (Not Supported)
;; QUESTION SECTION:
;deleg.rwdns.de.                                IN                      ANY

;; Query time: 241 msec
;; SERVER: 2606:4700:4700::1111#53(2606:4700:4700::1111) (TCP)
;; WHEN: Tue Nov 10 05:09:37 MST 2026
;; MSG SIZE  rcvd: 49
```

- I really like that answer above and think it should become the default