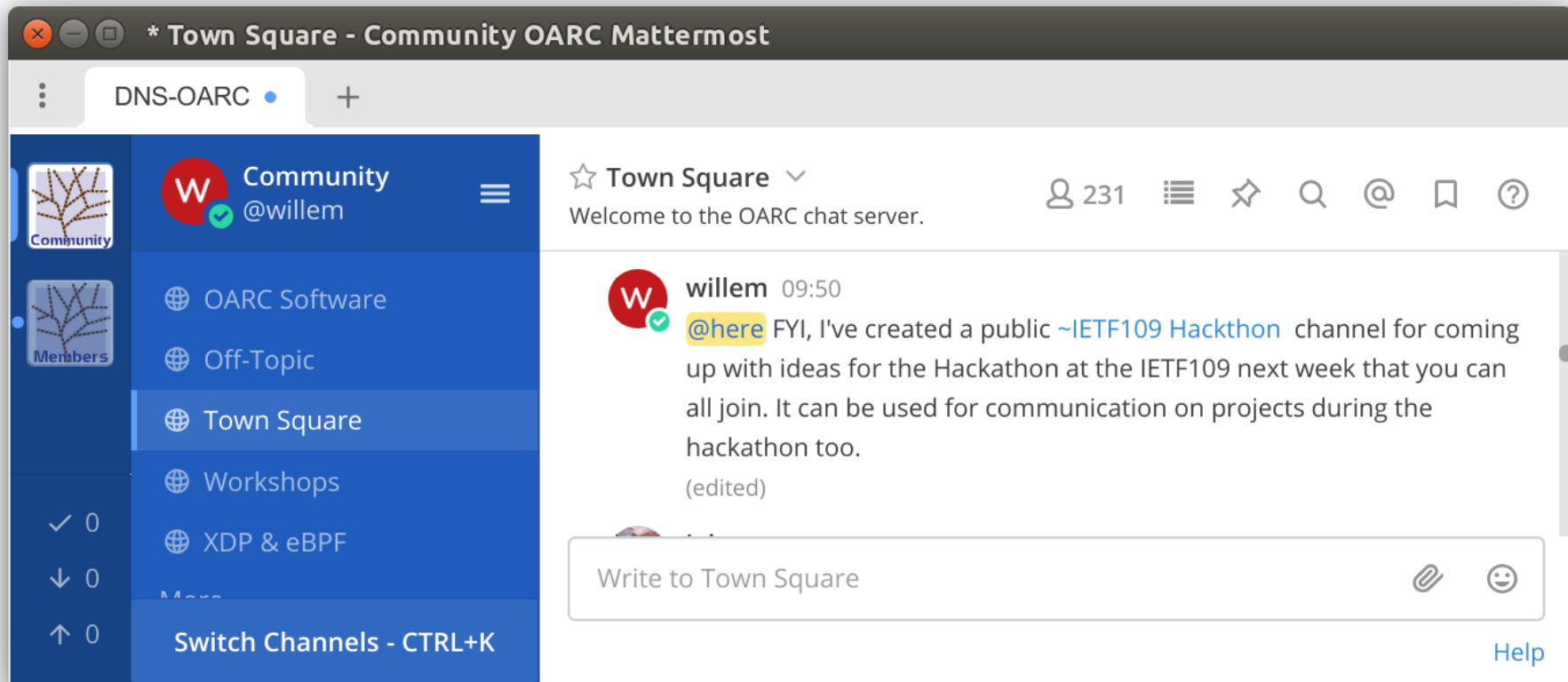




Results from project DNS

IETF 109
November 9-13, 2020
Online



14 signed up – but most(all) also still working as usual...

Hacks – DNS Error Reporting

- [draft-arends-dns-error-reporting](#)
- Like Extended DNS Errors [[RFC8914](#)],
but reporting to authoritative instead of querier

* IETF109 Hackthon - Community OARC Mattermost

DNS-OARC +

Community @willem

PUBLIC CHANNELS +

- catalog-zones
- IETF109 Hackthon
- OARC Software
- Off-Topic
- Town Square
- Workshops
- XDP & eBPF
- More...

PRIVATE CHANNELS +

- open-source-dns

DIRECT MESSAGES +

- anshu1910
- axel
- banburybill, jan, s...

Switch Channels - CTRL+K

☆ IETF109 Hackthon

Enter your projects here: <https://trac.ietf.org/trac/ietf/me...>

14

royarends 12:12

Hi folks!

I'm setting up some zones and infra for dns-error-reporting. I'm looking for existing, portable, purposely broken zones 😊

habbie 12:14

servfail.nl, dnssec-failed.org, the sidnlabs workbench, the root canary domain set

royarends 12:14

brilliant habbie, I'll have a look

habbie 12:15

`1400.v4.big.7bits.nl` (assuming your resolver's bufsize is smaller than 1467)

(also 'v6' and 'vx')

(you can adjust the number as needed)

royarends 12:17

I'd need to have some of this data on a server that would return the edns0 option with an agent domain.

habbie 12:17

oh, right!

royarends 12:19

I'll have a look at <https://workbench.sidnlabs.nl/zones/>

Write to IETF109 Hackthon

Help

reporting

ng

914],

ad of querier

```
willem@makaak: ~  
willem@makaak:~$ dig @ns.nlnetlabs.nl broken.nlnetlabs.nl TXT +ednsopt=58160  
  
; <<>> DiG 9.16.6-Ubuntu <<>> @ns.nlnetlabs.nl broken.nlnetlabs.nl TXT +ednsopt=58160  
; (2 servers found)  
;; global options: +cmd  
;; Got answer:  
;; ->HEADER<- opcode: QUERY, status: NXDOMAIN, id: 51281  
;; flags: qr aa rd; QUERY: 1, ANSWER: 0, AUTHORITY: 1, ADDITIONAL: 1  
;; WARNING: recursion requested but not available  
  
;; OPT PSEUDOSECTION:  
; EDNS: version: 0, flags;; udp: 1232  
; OPT=58160: 06 72 65 70 6f 72 74 09 6e 6c 6e 65 74 6c 61 62 73 02 6e 6c 00 (".report.nlnetlabs.nl.")  
;; QUESTION SECTION:  
;broken.nlnetlabs.nl.          IN      TXT  
  
;; AUTHORITY SECTION:  
nlnetlabs.nl.                240     IN      SOA     ns.nlnetlabs.nl. hostmaster.nlnetlabs.nl. 2020110905 2  
8800 7200 604800 240  
  
;; Query time: 0 msec  
;; SERVER: 2a04:b900::8:0:0:60#53(2a04:b900::8:0:0:60)  
;; WHEN: do nov 12 15:56:50 CET 2020  
;; MSG SIZE rcvd: 123  
  
willem@makaak:~$
```

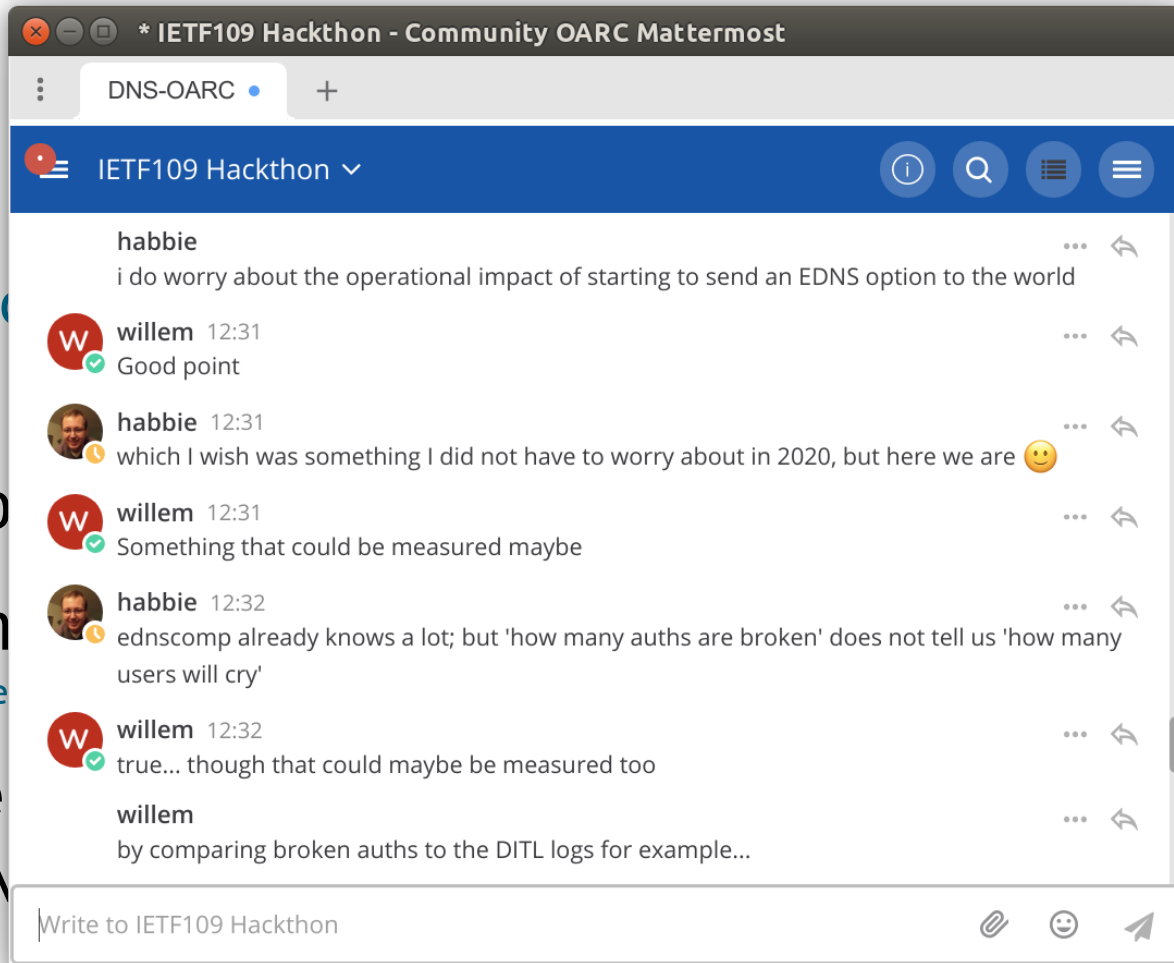
```
willem@makaak: ~  
willem@makaak:~$ dig @ns.nlnetlabs.nl broken.nlnetlabs.nl TXT +ednsopt=58160  
; <<>> DiG 9.16.6-Ubuntu <<>> @ns.nlnetlabs.nl broken.nlnetlabs.nl TXT +ednsopt=58160  
report.nlnetlabs.nl/dnstap.log.20201109 - Chromium  
report.nlnetlabs.nl/dnstap x +  
← → ↻ ⓘ Niet beveiligd | report.nlnetlabs.nl/dnstap.log.20201109 ☆ 🗨 🧐 🌐 📺 ⚙️ W ⋮  
20:30:23.908827 AQ 2a10:3781:85e:0:61d3:eff2:5c0c:e088 UDP 57b "7.1.broken.test._er.report.nlnetlabs.nl." IN TXT  
20:30:32.634195 AQ 2a10:3781:85e:0:61d3:eff2:5c0c:e088 UDP 57b "7.1.broken.test._er.report.nlnetlabs.nl." IN NULL  
20:35:41.150998 AQ 52.73.169.169 UDP 47b "www.cybergreen.net." IN A  
21:09:17.960700 AQ 66.185.123.248 UDP 52b "_eR.rEpORT.nLnetlabs.NL." IN A  
21:09:17.961505 AQ 66.185.123.248 UDP 52b "_er.report.nlnetlabs.nl." IN NS  
21:15:06.572294 AQ 192.241.208.169 UDP 30b "VERSION.BIND." CH TXT  
22:11:57.139319 AQ 2620:0:2830:211::35 UDP 79b "well.done.willem.I.love.it._er.report.nlnetlabs.nl." IN A  
;; SERVER: 2a04:b900::8:0:0:60#53(2a04:b900::8:0:0:60)  
;; WHEN: do nov 12 15:56:50 CET 2020  
;; MSG SIZE rcvd: 123  
willem@makaak:~$
```

Hacks – DNS Error Reporting

- [draft-arends-dns-error-reporting](#)
- Like Extended DNS Errors [[RFC8914](#)],
but reporting to authoritative instead of querier
- Testing environment & 1 auth implementation ready
<https://github.com/NLnetLabs/nsd/tree/features/draft-arends-dns-error-reporting>
- Resolver implementations coming soon...
Knot, PowerDNS, Unbound all have EDE branches

Hacks –

- [draft-arends-](#)
- Like Extended but reporting to
- Testing environ
<https://github.com/NLne>
- Resolver imple
Knot, PowerDNS



Hacks – Message Digest for DNS Zones

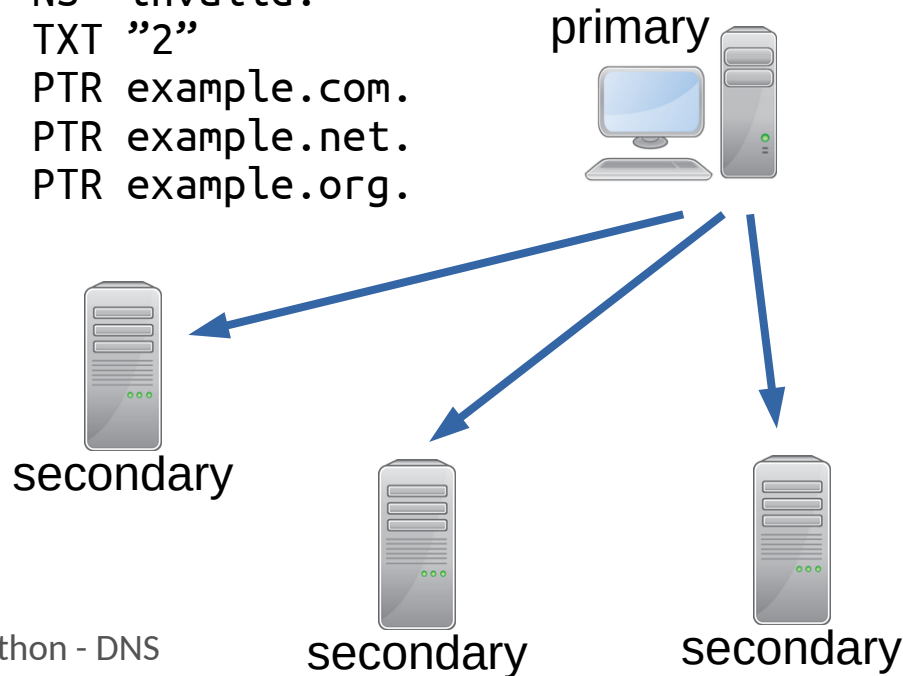
- [draft-ietf-dnsop-dns-zone-digest](#)
- DNSSEC : Integrity and Authenticity for RRsets
- ZONEMD: Integrity and Authenticity for complete zones
- PoC ldns tool (to sign) existed, but was a bit cumbersome:
 - add ZONEMD RR with tool
 - ldns-signzone
 - run tool again to equip and sign the ZONEMD RR
- Now, do all this at once with new -z option to ldns-signzone
- <https://github.com/NLnetLabs/ldns/tree/features/draft-ietf-dnsop-dns-zone-digest>

Hacks - Catalog Zones

- draft-toorop-dnsop-dns-catalog-zones

```
$ORIGIN catzone.
```

```
@           IN  SOA  . . 1552507036 86400 14400 86400 0
@           IN  NS   invalid.
version     IN  TXT  "2"
<unique-id-1>.zones IN PTR example.com.
<unique-id-2>.zones IN PTR example.net.
<unique-id-3>.zones IN PTR example.org.
```



Hacks - Catalog Zones

DNS-OARC

+

IETF109 Hackt...

willm

@habbie Maybe we could still try to setup some catalog zone interoperability testing. I think @libcha would be willing to help out with that too.

willm

Somewhere next week before the Friday dnsop session

willm

Also, any projects I missed?

L libcha 12:39

yes

habbie 12:39

yes that makes sense to me

W willem 12:40

Excellent 😊

habbie 12:40

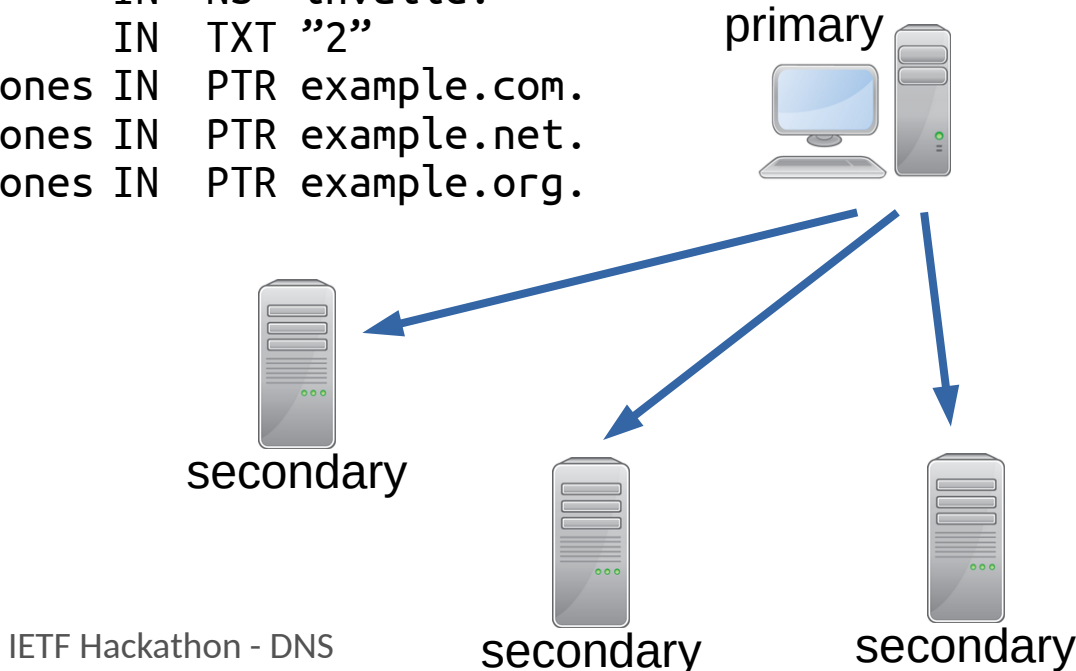
given that we all seem to have consumers, I think it would make sense if somebody ran a public producer with periodic automatic mutations

Write to IETF109 Hackthon

top-dns-catalog-zones

one.

```
IN SOA . . 1552507036 86400 14400 86400 0
IN NS invalid.
IN TXT "2"
>.zones IN PTR example.com.
>.zones IN PTR example.net.
>.zones IN PTR example.org.
```



What we learned

- I really miss the in-person hackathon!
 - better ad-hoc conversations & social interaction
 - dedicated time-slot
- Online hackathon still worth it, because
 - implementers focus on new ideas and standards
 - still good input for the workgroup

Wrap Up

- Hackathon report in DNSOP
- Hopefully on Friday
- Try to finish some more work

Team members:

