

DNS Hackathon 2025 Report

Denesh Bhabuta



DNS-OARC

Domain Name System Operations Analysis and Research Center

gratitude :: hosts



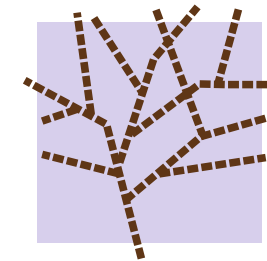
**RIPE
NCC**

RIPE NETWORK
COORDINATION
CENTRE

Vesna
Manoljovic



Johanna
Eriksson



DNS-OARC

Denesh
Bhabuta

gratitude :: host helpers



Jerry
Lundström

Mattias
Ahnberg

gratitude :: programme committee



Arife
Vural-Butcher

Lars-Johan
Liman

Samaneh
Tajalizadekhoob

gratitude :: collaborative group



ideation



• Anycast Sharing
Cache
(Alternative Resolvers)

• Efficient (Anycast)
Rate limiting + outlier
Detection (Jamiel)

(Pete Alty)

- Get DANE on Ladybird
- libCurl, gimme your Certs
 - Parse DANE/TLSP
 - UI shit
 - Curl, have my certs?

DotHoT or Not Tor-stuff

github.com/Arcnibn/dotdot

client — resolver

client entry middle exit

client — proxy — resolver

Oblivious DNS
ODoH

Client to resolver
.odns

DotH
RP

Threat model?

Civo — DotH-aim

get BETTER

IDEA!!!

https://github.com/Hackathon/getBETTER

ideally mostly reading like documenting my work

maybe some code

"WRAP vs EXTEND" is the question

DNS
ICP

STANARDS

Recommended?

include

DNSSEC

SECURITY

2-3 years

SECURITY

SECURITY

SECURITY

Canned DNS

Systematic
broken
responses

get BETA

get BETA

get BETA

Cache oblivious
Keep caches hot

Resolver A learns example.com

Spreads the response to B and C

Who put it in cache?

PROJECT DELEG

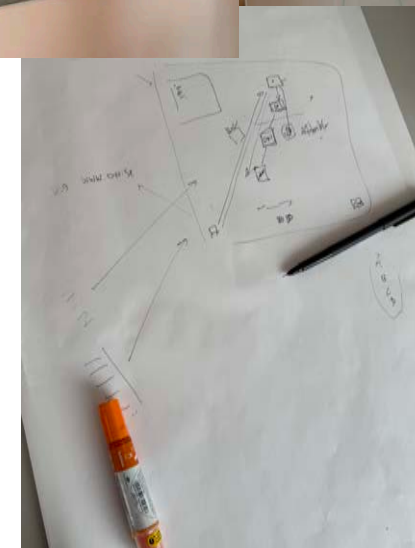
"MAKE THE DNS
BROKEN AGAIN" :-)

CHANGE THE DNS DELEGATION (2 DRAFT)

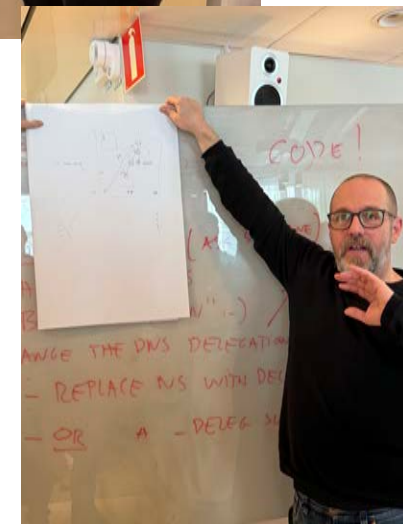
- REPLACE NS WITH DELEG?

- OR A - DELEG SUBSTITUTION?

MORE
FEATURES



persuasion



association



Babies



Baby was delivered

- NSD authoritative server integrated with Stork

Future

- Integrate Knot DNS & DSC

Canned DNS



Created a nameserver with
Canned DNS responses

Written in Go

Used Miek Gieben's DNS library

DoHoT or Donion



DNS-over-HTTPS-over-Tor

Latency problem over Tor

Measured different approaches



IoT devices are idiots

Major issues in DNS for IoT

Insights and DNS recommendations



Lookup Hostname Best-practice

DNS delivers more than just addresses

Make `getaddrinfo()` better to use a
workaround

Poisonlicious



Proof of concept for an efficient DNS resolver in Unbound

- authoritative response sharing between co-operating resolvers

Drafted an IETF RFC



Visualising what a resolver is doing when looking up a domain name

More interactive than a whiteboard, perhaps more pedagogical

commendation



Most complete project

Canned DNS

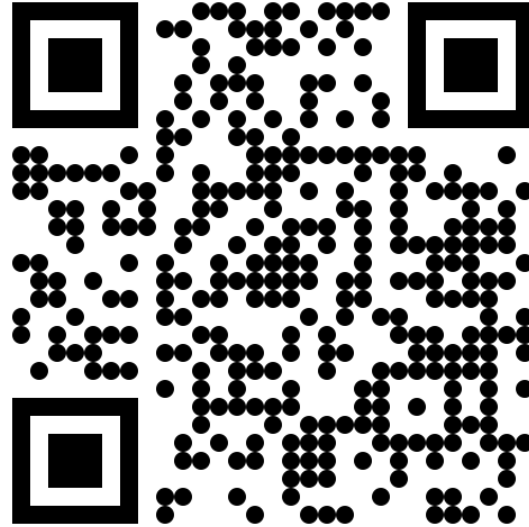
Funniest project name

idIOT

Project with self appointed most annoying team member

Babies

cooperation.. collaboration



<https://github.com/DNS-Hackathon>