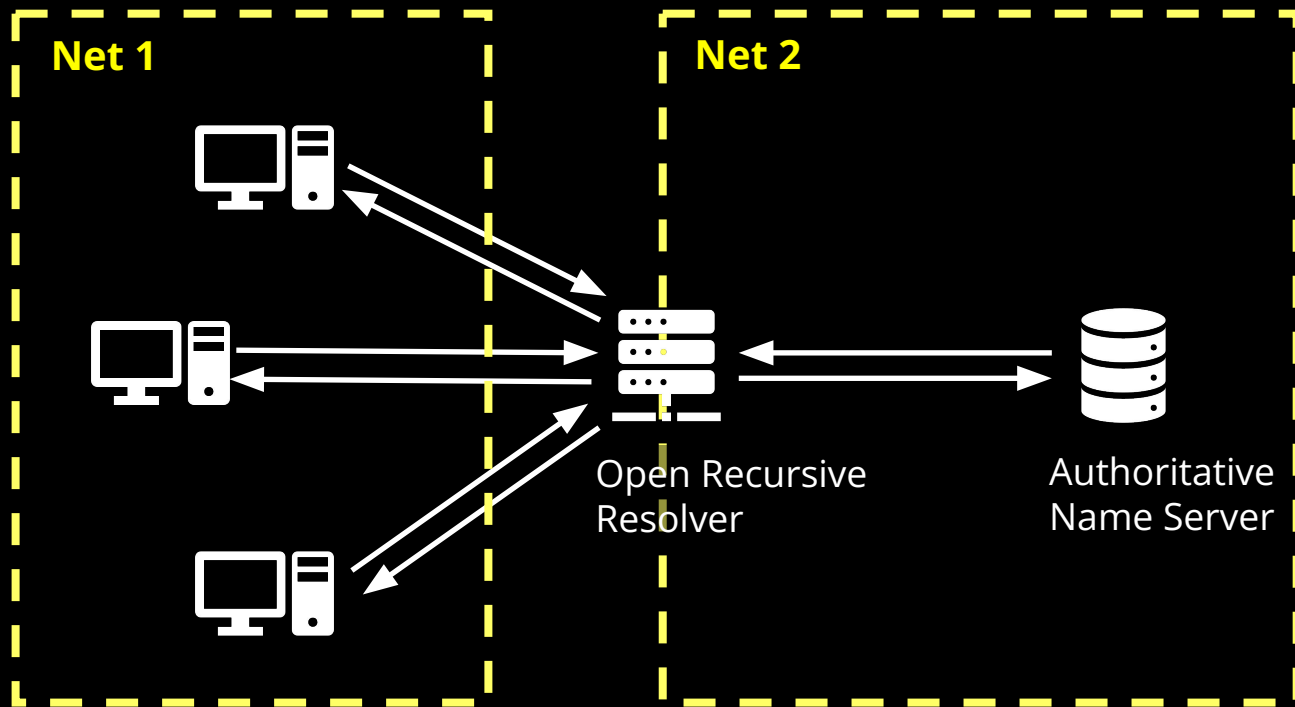


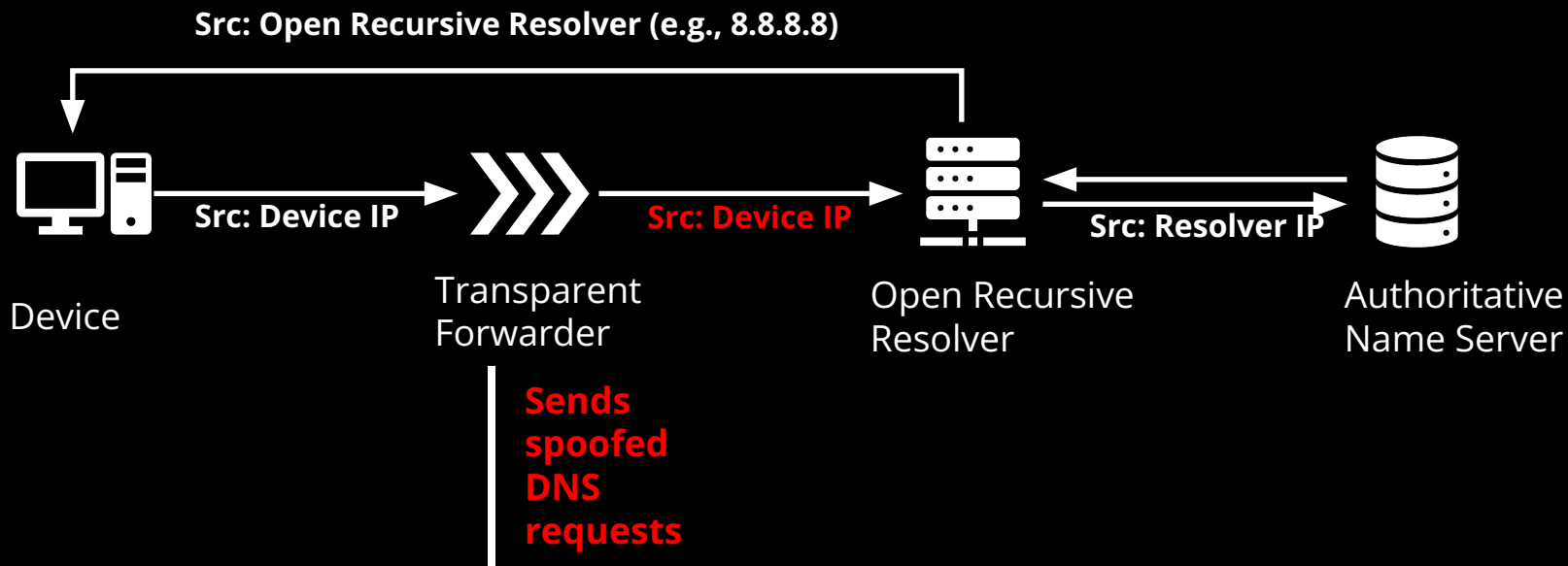
# Measuring Transparent Forwarders of the Open DNS Infrastructure

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# What is Open DNS?



# What are transparent forwarders?



# What are transparent forwarders?

Misused for DDoS amplification attacks.

Device

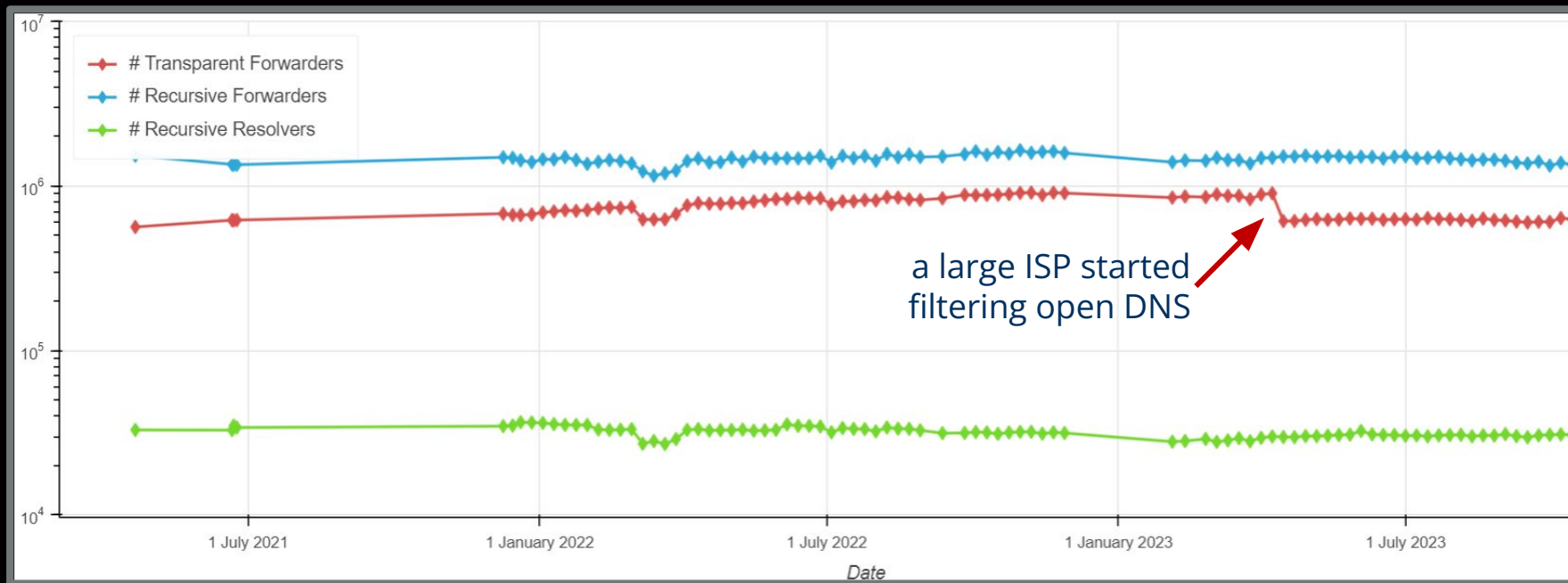
Forwarder

Resolver

Name Server

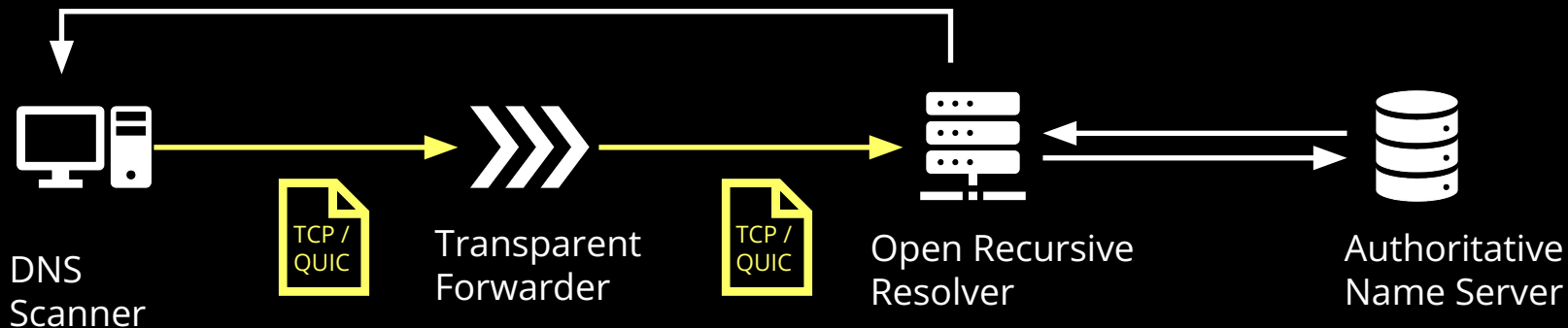
**Sends  
spoofed  
DNS  
requests**

**Measurements** help to identify transparent forwarders to disable them. <https://odns.secnow.net/data>



Number of DNS Resolvers / Forwarders over time

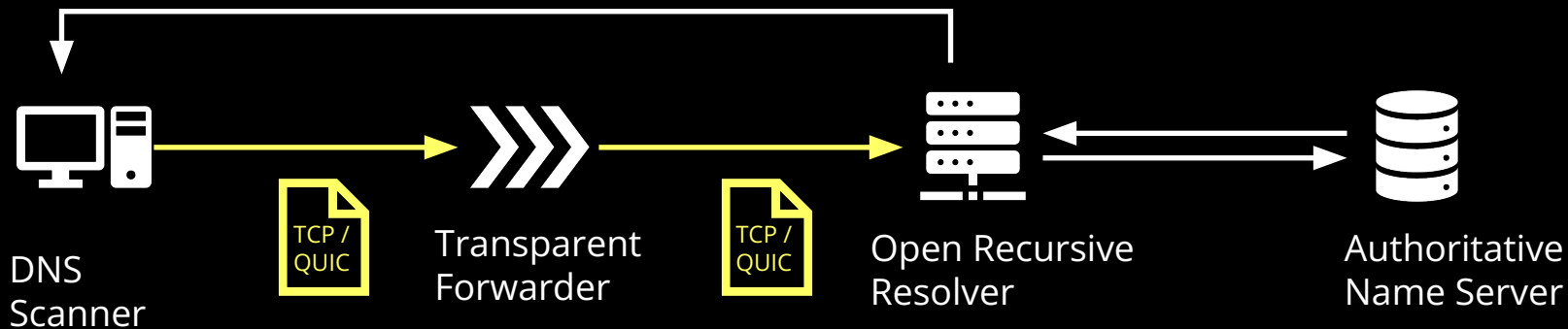
# Our Goals @ IETF 118 Hackathon



Extend `odns.secnow.net` to support:

- DNS over TCP
- DNS over QUIC

# Our Goals @ IETF 118 Hackathon **and what we got done**



Extend `odns.secnow.net` to support:

✓ **DNS over TCP**

- DNS over QUIC

## Team members and first timers

- Florian Dolzmann\*
- Maynard Koch\*
- Carl-Bennet Kuhlmann\*
- Maximilian Stäps\*
- Johannes Zirngibl

\*Participation has been supported by the German Federal Ministry of Education and Research (BMBF) and the Free State of Saxony as part of Germany's Excellence Strategy.

## Results

- <https://odns.secnw.net/data>
- <https://github.com/f10d0/odns-fwd-toolkit>