

# DNS Privacy Test Servers

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## Public resolvers



Public Resolvers: Several large organisations have announce DNS Privacy Servers - see [DNS Privacy Public Resolvers](#)

- [Quad9 \(9.9.9.9\)](#) and [Cloudflare \(1.1.1.1\)](#) offer DNS-over-TLS on port 853
- DOH servers are also currently listed on that page

## Experimental DNS Privacy Recursive Servers

[Live Monitoring Dashboard](#)

[Live Traffic Graphs](#)

[Map of server locations](#)

## DoH servers

These are currently listed on the [DNS Privacy Public Resolvers](#) page and also the list maintained [on the curl wiki](#). For any servers below with the note 'also does DoH' check these pages or the website of the service for the DoH endpoint.

## DoT servers

The following servers are experimental DNS-over-TLS servers.



Note that they are experimental offerings (mainly by individuals/small organisations) with **no guarantees** on the lifetime of the service, service level provided. The level of logging may also vary (see the individual websites where available) - the information here about logging has not been verified. Also note that the single SPKI pins published here for many of these servers are subject to change (e.g on Certificate renewal) and should be used with care!!

**Oct 2020: The list below has been updated to retain only those servers that appear to still be actively maintained**

## Stubby

A YAML configuration file for Stubby containing a the details of these servers is provided with Stubby and [can be found here](#). This file enables only the subset of servers operated by the stubby/getdns developers by default, users can choose to enable any of the other servers by uncommenting the relevant section (occasionally the file lags this page).

## Servers run by the Stubby developers

| Hosted by  | IP addresses                                     | TLS Ports  | Hostname for TLS authentication | Base 64 encoded form of SPKI pin (s) for TLS authentication (RFC7858) | TLSA record published | Logging             | Software            | Notes |
|--|--|------------|---------------------------------|---|-----------------------|---------------------|---------------------|-------|
| <b>1) The following are currently enabled in the <a href="#">default Stubby config file</a> because they are run by the stubby/getdns developers and have no known issues.</b> |  |            |                                 |   |                       |                     |                     |       |
| Surfnet  | 145.100.185.15<br>2001:610:1:40ba:145:100:185:15 | 853<br>443 | dnsovertls.sinodun.com          | 62IKu9HsDVbyiPenApnc4sfmSYTHOVfFg<br>L3pyB+cBL4=                      | Y                     | Traffic volume only | HAProxy + BIND 9.12 |       |
| Surfnet  | 145.100.185.16<br>2001:610:1:40ba:145:100:185:16 | 853<br>443 | dnsovertls1.sinodun.com         | cE2ecAlE5B+urJhDrJIVFmf38cJLAvqek<br>ONvjvpqUA=                       | Y                     | Traffic volume only | Nginx + BIND 9.12   |       |
| <a href="#">getdnsapi.net</a>  | 185.49.141.37<br>2a04:b900:0:100::37             | 853        | getdnsapi.net                   | foxZRnlh9gZpWnl+zEiKa0EJ2rdCGroMW<br>m02gaxSc9Q=                      | Y                     | Traffic volume only | Unbound             |       |

## Other servers with a 'no logging' policy

| Hosted by                               | IP addresses  | TLS Ports | Host name for TLS authentication | Base 64 encoded form of SPKI pin(s) for TLS authentication (RFC7858)  | TLSA record published | Logging                         | Software            | Notes   |
|---|---|-----------|----------------------------------|---|-----------------------|---------------------------------|---------------------|---|
| UncensoredDNS                           | 89.233.43.71<br>2a01:3a0:53:53::0                         | 853       | unicast.censurfridns.dk          | wikE3jYAA6jQmXYTr/rbHeEPmC78dQwZbQp6WdrseEs=<br>(also see <a href="#">this file</a> for a full set of pins) | Y                     | Traffic volume only             |                     | See <a href="https://blog.uncensoreddns.org/">https://blog.uncensoreddns.org/</a>   |
| Fondation RESTENA (NREN for Luxembourg) | 158.64.1.29<br>2001:a18:1::29                             | 853       | kaitain.restenalu                | 7ftvIkA+UeN/ktVkovd/7rPZ6mbkhV17/8HnFJiLa4=   |                       | Traffic volume only             | Unbound             | Configured with qname-minimisation, use-caps-for-id, aggressive-nsec, prefetch, harden-below-nxdomain and the newest auth-zone for local root zone caching.   |
| Surfnet                                 | 145.100.185.18<br>2001:610:1:40ba:145:100:185:18          | 853       | dnsovertls3.sinodun.com          | 5SpFz7JEPzF71hditH1v2dBhSErPUMcLPJx1uk2svT8=  | Y                     | Traffic volume only             | HAProxy + BIND 9.12 | Supports TLS 1.3 and TLS 1.2. Our initial stability problems are solved... see <a href="#">here for details</a> .   |
| Surfnet                                 | 145.100.185.17<br>2001:610:1:40ba:145:100:185:17          | 853       | dnsovertls2.sinodun.com          | NAXBESvpjZMnPWQcra2KFKiHV/pDEIjRkA3hLWogSg=   | Y                     | Traffic volume only             | Knot Resolver       |   |
| dkg                                     | 199.58.81.218<br>2001:470:1c:76d::53                      | 85343     | dns.cmrg.net                     | 3IOHSS48KOc/zlkKgtl46a9TY9PPKDVGH3W2ZS4JZ0=5zFN3smRPuHillM/8L+hANt99LW26T97RFHqHv90awj0=                    |                       | None                            | Knot Resolver       | See <a href="https://dns.cmrg.net/">https://dns.cmrg.net/</a> Note that on port 443 this server can serve both HTTP 1.1 traffic (to securely access the nameserver credentials) on TLS connections <b>and</b> DNS-over-TLS on separate TLS connections due to some <a href="#">nifty, experimental demultiplexing of traffic, described here</a> . Has some issues with DNSSEC responses - this is under investigation. |
| Lorraine Data Network                   | 80.67.188.188<br>2001:913::8                              | 85343     |                                  | WaG0kHUS5N/ny0labz85HZg+v+I0b/UQ73IzJFep0nM=  |                       | Traffic volume only             | stunnel 4 + BIND    | See <a href="https://ldn-fai.net/serveur-dns-recursif-ouvert/">https://ldn-fai.net/serveur-dns-recursif-ouvert/</a> (note, logging of IP address at stunnel no longer performed).<br><b>A self-signed certificate is used, so SPKI pinning is must be used.</b>   |
| dns.neutopia.org                        | 89.234.186.112<br>2a00:5884:8209::2                       | 85343     | dns.neutopia.org                 | wTeXHM8acvvhRSi0cv2qOXkXInoDU+2C+M8MpRyT3OI=  |                       | No logging                      | Knot resolver       |   |
| BlahDNS                                 | 108.61.201.119<br>2001:19f0:7001:1ded:5400:01ff:fe90:945b | 85343     | dot-jp.blahdns.com               |   |                       | No logging                      |                     | <a href="https://blahdns.com/">https://blahdns.com/</a><br><br>NOTE1: Located in Japan. <a href="#">Also does DoH</a> .<br>NOTE2: Note that port 443 REQUIRES an authentication name<br><br><b>UPDATED 22nd JAN 2018: note the authentication name has changed</b>  |
| BlahDNS                                 | 159.69.198.101<br>2a01:4f8:1c1c:6b4b::1                   | 85343     | dot-de.blahdns.com               |   |                       | No logging                      |                     | <a href="https://blahdns.com/">https://blahdns.com/</a><br><br>NOTE1: Located in Frankfurt. <a href="#">Also does DoH</a> .<br>NOTE2: Note that port 443 REQUIRES an authentication name  |
| Go6Lab                                  | 2001:67c:27e4::35   | 853       | privacydns.go6lab.si             | g5lqtwhia/pkKqWU/Fe2Woh4+7MO3d0JYqYJpj/iYAw=  |                       | No logging                      | Unbound             |   |
| Secure DNS Project by PumpleX           | 51.38.83.141<br>2001:41d0:801:2000::d64                   | 853       | dns.osz.co                       | P/Auj1pm8MiUpelxGcrEuMJQOV+pgPY0MR4awpcIvT4=  |                       | No logging                      |                     | <a href="https://dns.osz.co">https://dns.osz.co</a><br>NOTE1: Also does DoH and dnscrypt<br>NOTE2: Performs ad blocking   |
| Foundation for Applied Privacy          | 146.255.56.98<br>2a01:4f8:c0c:83ed::1                     | 85343     | dot1.applied-privacy.net         |   | Y                     | Only aggregated logging, no PII | unbound             | <b>DETAILS UPDATED 14th Sep 2020</b><br><br><a href="https://appliedprivacy.net/services/dns/">https://appliedprivacy.net/services/dns/</a><br><br>NOTE: Also does DoH and has an .onion endpoint   |
| ibksturm.synology.me                    | 178.82.102.190  | 853       | ibksturm.synology.me             |   |                       | No logging                      | nginx + unbound     | <a href="https://github.com/ibksturm/dnscrypt-switzerland">https://github.com/ibksturm/dnscrypt-switzerland</a><br><br>NOTE: Also does DoH and dnscrypt no filters, opennic root copy   |

|            |   |     |                  |  |            |   |
|------------|---|-----|------------------|--|------------|---|
| dismail.de | 159.69.114.157<br>2a01:4f8:c17:739a::2  | 853 | fdns2.dismail.de | yJYDim2Wb6tbxUB3yA5EIU/FsRZZhyMXye8sXhKEd1w=     | No logging | <a href="https://dismail.de/info.html#dns">https://dismail.de/info.html#dns</a> |
| dismail.de | 80.241.218.68<br>2a02:c205:3001:4558::1 | 853 | fdns1.dismail.de | MMi3E2HZr5A5GL+badqe3tzEP<br>CB00+OmApZqJakbqUU= | No logging | <a href="https://dismail.de/info.html#dns">https://dismail.de/info.html#dns</a> |

## Servers with minimal logging/limitations

These servers use **some logging**, self-signed certs or no support for Strict mode.

| Hosted by | IP addresses                               | TLS Ports | Hostname for TLS authentication | Base 64 encoded form of SPKI pin(s) for TLS authentication (RFC7858) | TLSA record published | Logging                    | Software | Notes  |
|-----------|--|-----------|---------------------------------|--|-----------------------|----------------------------|----------|--|
| NIC Chile | 200.1.123.46<br>2001:1398:1:0:200:1:123:46 | 853       | dnsotls.lab.nic.cl              | pUd9cZpbm9H8ws0tB55m9BXW4TrD4GZfBAB0ppCziBg=                         | Y                     | Yes, for research purposes | Unbound  | <b>Details updated 18th Sept - now uses Let's encrypt cert</b> |