

DNS over HTTPS

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DOH

Do DNS resolves over HTTPS for privacy, performance, and security. It also makes it easier to use a name server of your choice instead of the one configured for your system.

Spec

[RFC 8484 - DNS Queries over HTTPS \(DoH\)](#)

Publicly available servers

Who runs it	Base URL	Comm
AdGuard	Default: https://dns.adguard.com/dns-query Family protection: https://dns-family.adguard.com/dns-query	Default provides a DNS level, while Family protection adds ad blocking.
Google	https://dns.google/dns-query	Full RFC 8484 support
Cloudflare	https://cloudflare-dns.com/dns-query also available via Tor onion service	Supports both -04 content-types
Quad9	Recommended: https://dns.quad9.net/dns-query Secured: https://dns9.quad9.net/dns-query Unsecured: https://dns10.quad9.net/dns-query Secured w/ECS Support: https://dns11.quad9.net/dns-query	Secured provides: blocklist, DNSSEC, Client-Subnet Unsecured provides blocklist, no DNSSEC Client-Subnet Recommend is currently identical to secured
Cisco Umbrella/OpenDNS	https://doh.opendns.com/dns-query	Experimental, No I

Who runs it	Base URL	Comm
CleanBrowsing	https://doh.cleanbrowsing.org/doh/family-filter/	anycast DoH server control (restricts adult content + enforces)
Comcast	https://doh.xfinity.com/dns-query	Experimental, DNS
Cox	https://dohdot.coxlab.net/dns-query	Experimental, No I
nextdns.io	<a href="https://dns.nextdns.io/<config_id>">https://dns.nextdns.io/<config_id> Create a config ID	The first cloud-based DNS service that gives you control over what is blocked or
@chantra	https://dns.dnsoverhttps.net/dns-query	"toy server" which proxy
@jedisct1	https://doh.crypto.sx/dns-query	a server which runs project called doh in Rust.
PowerDNS	https://doh.powerdns.org	Based on dnsdist
blahdns.com	Finland: https://doh-fi.blahdns.com/dns-query Japan: https://doh-jp.blahdns.com/dns-query Germany: https://doh-de.blahdns.com/dns-query	Based on Go implementation of knot-resolver , Unbound, DNSSEC, No ECS, I Adsblock
NekomimiRouter.com	https://dns.dns-over-https.com/dns-query	Runs Go implementation of recursion itself with servers. Toy server please report if fai
SecureDNS.eu	https://doh.securedns.eu/dns-query	No Logging & DN
Rubyfish.cn	https://dns.rubyfish.cn/dns-query	East China Zone, B https://github.com/dnsoverhttps
ContainerPI	Unfiltered by Cloudflare: https://dns.containerpi.com/dns-query Filtered by CleanBrowsing, blocks adult content: https://dns.containerpi.com/doh/family-filter/ Filtered, blocks malicious domains only: https://dns.containerpi.com/doh/secure-filter/	Based on m13253 , HTTPS , no logging Subnet enabled. Not in China Mainland , China Taiwan , Japan , Korea , India , Germany , Romania , Russia , Brazil .

Who runs it	Base URL	Comm
@publicarray dns.seby.io	https://doh-2.seby.io/dns-query https://doh.seby.io:8443/dns-query	Australian server t @m13253's Go im Unbound with DN and No logs
Commons Host	https://commons.host	~20 PoPs worldw Node.js/ playdoh o Resolver .
DnsWarden	Adblocking DNS: https://doh.dnswarden.com/adbloc Uncensored DNS: https://doh.dnswarden.com/uncensored Adult-filter DNS: https://doh.dnswarden.com/adult-filter	No query/IP loggin DNSSEC enabled. Blocks ads and tra Adblocking DNS. No filtering in Unc Blocks adult conte trackers and also e safe search for sea and youtube in Ad
aaflalo.me	Server US: https://dns-nyc.aaflalo.me/dns-query Server EU: https://dns.aaflalo.me/dns-query	Runs on Star Brillia https Both servers check and block advertis
Foundation for Applied Privacy	https://doh.applied-privacy.net/query	No query/IP loggin QNAME minimizat client subnet, TLS RFC7706, RFC8198 https://applied-privacy.net/service
captnemo.in	https://doh.captnemo.in/dns-query	Runs dnss with loc resolver running D DNSSEC support a upstream. Privacy details at https://captnemo.i logging or filtering Bangalore, India
Tiarap	https://doh.tiar.app/dns-query https://doh.tiarap.org/dns-query	Based in Singapore block Ad/Ad-track No ECS, DNSSEC

Who runs it	Base URL	Comm
DNS.SB	https://doh.dns.sb/dns-query	DNSSEC enabled
FAELIX	https://rdns.faelix.net/	No logging, based doh RC querying c recursor resolvers, nodes in UK and C
doh.li	https://doh.li/dns-query	Runs on dns-over-logging , EDNS Client enabled, based in London. DNSSEC enabled, not currently enabled
armadilloDNS.net	https://doh.armadilloDNS.net/dns-query	No source IP logging
jp.tiar.app	https://jp.tiar.app/dns-query https://jp.tiarap.org/dns-query	No Censorship, No ECS, support DNSSEC
Association 42l	https://doh.42l.fr/dns-query	DNSSEC, not logging content, uses doh-edgedns for caching proxied randomly members' open DNS (French ISPs committed to neutrality).
Hostux.net	Uncensored DNS: https://dns.hostux.net/dns-query Adblocking DNS: https://dns.hostux.net/ads	DNSSEC, no EDNS, not logging queries, hosted in Luxembourg
Andrews & Arnold	https://dns.aa.net.uk/dns-query	no logging (see DI)
@matthewgall - mydns.network	https://adblock.mydns.network/dns-query (adblock, using PiHole)	no logging, DNSSEC, DDoS protected (by Cloudflare), any
ibksturm.synology.me	https://ibksturm.synology.me/dns-query	doh-server (nginx unbound), DNSSEC, Logged / Uncensored and Root DNS-Zone Hosted in Switzerland, ibksturm, aka And

Who runs it	Base URL	Comm
jcdns.fun	https://jcdns.fun/dns-query	secure nginx, Non Censored, hosted on Ocean VPS by jam AKA James Campk
@null31	https://ibuki.cgnat.net/dns-query	Brazilian server that uses Unbound with DNSSEC, recursion with no logging, no IP logging, servers, QNAME minimization, TLS 1.3, DoT, uncensored, no logging, no ECS, hosted on Google Cloud VPS server -- may fail.
TWNIC	https://dns.twinc.tw/dns-query	No source IP logging, hosted by Quad101 project, see this announcem
blockerDNS	https://example.doh.blockerdns.com/dns-query	DNS-based ad-blocker. One-man operation, no logging and DNS query logging, and DoT. Charges \$5/month for https DoH.
Digitale Gesellschaft	https://dns.digitale-gesellschaft.ch/dns-query	No query/IP logging, QNAME minimization, DNSSEC; https://www.digitale-gesellschaft.ch/dns-sec
LibreDNS	https://doh.libredns.gr/dns-query	no logging, TLS 1.3

Supported in browsers and clients

Name	Version	Comments
Firefox	62	Firefox DNS-over-HTTPS
Bromite	67.0.3396.88	How to enable DoH
curl	7.62.0	See DOH-implementation
OkHttp	3.11	See Providers

Name	Version	Comments
curl-doh	n/a	basic stand-alone DoH client that uses curl
Chrome	66	https://bugs.chromium.org/p/chromium/issues/detail?id=799753

DOH Tools

Name	Author/Organization	Comments
coredns	Cloudflare	CoreDNS is a DNS server/forwarder, written in Go from the Cloud Native Computing Foundation.
doh-proxy	Facebook	tools for DoH
dns2doh	Daniel	tool for generating DOH responses and questions.
doh-proxy	Frank Denis	server-side proxy in rust
doh-php-client	Daniel Cid	can be used to test and run DoH requests via PHP applications.
doh-js-client	Peter Lai	client-side implementation of DoH, can be used in nodejs backend.
jDnsProxy	Travis Burtrum	DNS proxy and cache, implementing DNS-over-TLS , DNS-over-HTTPS , and Serve-Stale
dns-over-https	Star Brilliant	server-side and client-side implementation, written in Golang
dnsdist	PowerDNS	supports doh, see https://dnsdist.org/guides/dns-over-https.html
dnss	Alberto Bertogli	daemon written in Go which acts as a proxy (the most common use case), and as a server (in case you want end-to-end control).
nss-tls	Dima Krasner	a daemon that makes <code>gethostbyname()</code> , <code>getaddrinfo()</code> , etc. happen through DoH, without any change to applications, thus transparently migrating all applications that don't use their own resolver (like some browsers) from DNS to DoH.
dealdoh	Maxime Elomari	a middleware to proxy DoH requests to different DNS upstreams, written in PHP.

Name	Author/Organization	Comments
Encrypted-DNS	Siujoeng Lau	DNS-over-HTTPS forwarder written in Python
RouteDNS	Frank Olbricht	a flexible stub resolver, proxy, and router with support for DoH, DoT, and plain DNS written in Go.
h2odoh	Max Kostikov	an implementation with H2O HTTP/2 server using embedded mruby.
Encrypted DNS Server	Frank Denis	can serve DNSCrypt and DoH traffic simultaneously, written in Rust.
quart-doh	Matthieu Treussart	HTTP/2 server who serves a DOH proxy written in Python, with Quart Python web microframework.
EasyDoH	ElevenPaths	a simple add-on for Firefox that allows one to easily activate DNS over HTTPS and its working mode with just one click.

Other

[Script to parse DoH provider URLs from this wiki page](#)

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