

# Domain & DNS Tools

These tools allow you to query and discover information about domains and the DNS system.

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# Dig

"Dig" is a tool on Unix and Linux servers that queries the Domain Name System for DNS records.

## About the Dig tool

Computers use the Domain Name System (or DNS for short) to convert human-readable domain names (e.g. `www.soliddevtools.com`) into an IPv4 address (e.g. **109.228.50.239**) or an IPv6 address (e.g. **2a00:da00:1800:15a::1**).

DNS records also store information about the millions of domains and websites that are on the Internet - such as an approved list of servers that can send mail on your domain's behalf (known as SPF records.)

## Use Cases

Use the Dig tool on Solid Tools for Developers to:

- Find the IP address of a website
- Check if a DNS record exists
- Check if a change made in DNS has been published

## Usage

Enter a DNS record you wish to query in the "Domain name/record" field - e.g. **www.google.com**.

If you wish to query a specific DNS server, enter its hostname or IP address in the "DNS server" field. If you don't know what this is, leave it as **localhost**.

Select the type of record you would like to query. For example: to find the IP address of a domain name, use the query type **A (IP address)**.

By default, Solid Tools for Developers will use its own DNS server to return your results. This may include cached data if the record was recently queried. To force the use of "live" data, tick the "Trace" option.

## Results

The complete output from the "Dig" tool will be displayed.

The "flags" line at the top will include a line like **QUERY: 1, ANSWER: 1, AUTHORITY: 4**. The figure next to **ANSWER** will tell you how many results were found.

The results themselves will be displayed under the section labelled **;; ANSWER SECTION**.

The following example shows a successful query to find the IPv4 address of [www.google.com](http://www.google.com):

```
; <<>> DiG 9.10.3-P4-Ubuntu <<>> @localhost www.google.com A
; (2 servers found)
;; global options: +cmd
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 25982
;; flags: qr rd ra; QUERY: 1, ANSWER: 1, AUTHORITY: 4, ADDITIONAL: 5

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags;; udp: 4096
;; QUESTION SECTION:
;www.google.com. IN A

;; ANSWER SECTION:
www.google.com. IN A 216.58.213.100

;; AUTHORITY SECTION:
google.com. IN NS ns2.google.com.
google.com. IN NS ns3.google.com.
google.com. IN NS ns1.google.com.
google.com. IN NS ns4.google.com.

;; ADDITIONAL SECTION:
ns1.google.com. IN A 216.239.32.10
ns2.google.com. IN A 216.239.34.10
ns3.google.com. IN A 216.239.36.10
ns4.google.com. IN A 216.239.38.10

;; Query time: 109 msec
;; SERVER: ::1#53(::1)
;; WHEN: Wed Dec 06 11:48:51 GMT 2017
;; MSG SIZE rcvd: 195
```

# Domain Whois

"Whois" is a tool on Unix and Linux servers that queries WHOIS servers for ownership of domains, IP addresses and networks.

## About the Domain WHOIS Lookup tool

Computers use the Domain Name System (or DNS for short) to convert human-readable domain names (e.g. **soliddevtools.com**) into an IPv4 address (e.g. **109.228.50.239**) or an IPv6 address (e.g. **2a00:da00:1800:15a::1**).

You can perform a query known as "WHOIS" to identify which organisation a domain name belongs to.

## Use Cases

Use the Domain WHOIS tool on Solid Tools for Developers to:

- Identify which organisation is responsible for a domain name
- Find out who to contact about a domain name

## Usage

Enter a domain name (without the "www") in the "domain name" field.

## Results

The raw output from the WHOIS database will be displayed.

The following example shows a WHOIS lookup for **soliddevtools.com**.

```
Domain Name: SOLIDDEVTOOLS.COM
Registry Domain ID: 2171825417_DOMAIN_COM-VRSN
Registrar WHOIS Server: whois.1api.net
Registrar URL: http://www.1api.net
Updated Date: 2023-11-10T12:52:47Z
Creation Date: 2017-10-08T16:54:08Z
```

Registry Expiry Date: 2028-10-08T16:54:08Z

Registrar: 1API GmbH

Registrar IANA ID: 1387

Registrar Abuse Contact Email: abuse@1api.net

Registrar Abuse Contact Phone: +49.68949396850

Domain Status: clientTransferProhibited <https://icann.org/epp#clientTransferProhibited>

Name Server: NS1.DNSIMPLE.COM

Name Server: NS2.DNSIMPLE-EDGE.NET

Name Server: NS3.DNSIMPLE.COM

Name Server: NS4.DNSIMPLE-EDGE.ORG

DNSSEC: signedDelegation

DNSSEC DS Data: 63451 8 2 5ADDD7E73699F49C156B53C35884F503B830057A1A9F6197CC002BFDEFB7F0E9

URL of the ICANN Whois Inaccuracy Complaint Form: <https://www.icann.org/wicf/>

>>> Last update of whois database: 2023-12-12T19:45:15Z <<<

For more information on Whois status codes, please visit <https://icann.org/epp>

NOTICE: The expiration date displayed in this record is the date the registrar's sponsorship of the domain name registration in the registry is currently set to expire. This date does not necessarily reflect the expiration date of the domain name registrant's agreement with the sponsoring registrar. Users may consult the sponsoring registrar's Whois database to view the registrar's reported date of expiration for this registration.

TERMS OF USE: You are not authorized to access or query our Whois database through the use of electronic processes that are high-volume and automated except as reasonably necessary to register domain names or modify existing registrations; the Data in VeriSign Global Registry Services' ("VeriSign") Whois database is provided by VeriSign for information purposes only, and to assist persons in obtaining information about or related to a domain name registration record. VeriSign does not guarantee its accuracy. By submitting a Whois query, you agree to abide by the following terms of use: You agree that you may use this Data only for lawful purposes and that under no circumstances will you use this Data to: (1) allow, enable, or otherwise support the transmission of mass unsolicited, commercial advertising or solicitations via e-mail, telephone, or facsimile; or (2) enable high volume, automated, electronic processes that apply to VeriSign (or its computer systems). The compilation, repackaging, dissemination or other use of this Data is expressly prohibited without the prior written consent of VeriSign. You agree not to

use electronic processes that are automated and high-volume to access or query the Whois database except as reasonably necessary to register domain names or modify existing registrations. VeriSign reserves the right to restrict your access to the Whois database in its sole discretion to ensure operational stability. VeriSign may restrict or terminate your access to the Whois database for failure to abide by these terms of use. VeriSign reserves the right to modify these terms at any time.

The Registry database contains ONLY .COM, .NET, .EDU domains and Registrars.

Domain Name: SOLIDDEVTOOLS.COM

Registry Domain ID: 2171825417\_DOMAIN\_COM-VRSN

Registrar WHOIS Server: whois.1api.net

Registrar URL: <http://www.1api.net>

Updated Date: 2023-11-10T12:52:47Z

Creation Date: 2017-10-08T16:54:08Z

Registrar Registration Expiration Date: 2028-10-08T16:54:08Z

Registrar: 1API GmbH

Registrar IANA ID: 1387

Registrar Abuse Contact Email: [abuse@1api.net](mailto:abuse@1api.net)

Registrar Abuse Contact Phone: +49.68949396x850

Reseller: DNSimple <https://dnsimple.com>

Domain Status: clientTransferProhibited - <http://www.icann.org/epp#clientTransferProhibited>

Registry Registrant ID:

Registrant Name: c/o WHOISTrustee.com Limited

Registrant Organization: Registrant of soliddevtools.com

Registrant Street: 6 Thornes Office Park Monckton Road

Registrant City: Wakefield

Registrant State/Province: West Yorkshire

Registrant Postal Code: WF2 7AN

Registrant Country: GB

Registrant Phone: +49.68416984300

Registrant Phone Ext:

Registrant Fax:

Registrant Fax Ext:

Registrant Email: [bfc0ea6438@soliddevtools.com.whoistrustee.com](mailto:bfc0ea6438@soliddevtools.com.whoistrustee.com)

Registry Admin ID:

Admin Name: c/o WHOISTrustee.com Limited

Admin Organization: Registrant of soliddevtools.com

Admin Street: 6 Thornes Office Park Monckton Road  
Admin City: Wakefield  
Admin State/Province: West Yorkshire  
Admin Postal Code: WF2 7AN  
Admin Country: GB  
Admin Phone: +49.68416984300  
Admin Phone Ext:  
Admin Fax:  
Admin Fax Ext:  
Admin Email: bfc0ea6438@soliddevtools.com.whoistrustee.com  
Registry Tech ID:  
Tech Name: c/o WHOISTrustee.com Limited  
Tech Organization: Registrant of soliddevtools.com  
Tech Street: 6 Thornes Office Park Monckton Road  
Tech City: Wakefield  
Tech State/Province: West Yorkshire  
Tech Postal Code: WF2 7AN  
Tech Country: GB  
Tech Phone: +49.68416984300  
Tech Phone Ext:  
Tech Fax:  
Tech Fax Ext:  
Tech Email: bfc0ea6438@soliddevtools.com.whoistrustee.com  
Name Server: ns1.dnsimple.com 162.159.24.4 2400:cb00:2049:0001:0000:0000:a29f:1804  
Name Server: ns3.dnsimple.com 162.159.26.4 2400:cb00:2049:0001:0000:0000:a29f:1a04  
Name Server: ns4.dnsimple-edge.org  
Name Server: ns2.dnsimple-edge.net 199.247.153.53 2620:0111:8005:0000:0000:0000:0000:0053  
DNSSEC: signedDelegation  
URL of the ICANN WHOIS Data Problem Reporting System:  
<http://wdprs.internic.net/>  
>>> Last update of WHOIS database: 2023-12-12T19:45:36Z <<<

For more information on Whois status codes, please visit <https://www.icann.org/resources/pages/epp-status-codes-2014-06-16-en>.

; This data is provided for information purposes, and to assist persons  
; obtaining information about or related to domain name registration  
; records. We do not guarantee its accuracy.  
; By submitting a WHOIS query, you agree that you will use this data  
; only for lawful purposes and that, under no circumstances, you will

; use this data to

; 1) allow, enable, or otherwise support the transmission of mass

; unsolicited, commercial advertising or solicitations via E-mail

; (spam); or

; 2) enable high volume, automated, electronic processes that apply

; to this WHOIS server.

; These terms may be changed without prior notice.

; By submitting this query, you agree to abide by this policy.

; Buy, connect, and operate your domains like a pro.

; Visit [dnsimple.com](https://dnsimple.com) to get started with domain management automation!

# SPF Record Analyser

SPF records indicate what servers (IP addresses) are allowed to send mail for a domain.

## About the SPF Record Analyser tool

To reduce spammers from sending e-mail that appears to come from your domain (known as e-mail spoofing) you can publish an SPF record to your domain name's DNS records.

An SPF record tells receiving mail servers which servers are explicitly allowed to send e-mail that comes from your domain name.

It is strongly recommended you publish an SPF record to prevent e-mail spoofing. You can use the SPF Record Analyser to validate your record applies the rules you expect.

## Use Cases

Use the SPF Record Analyser tool on Solid Tools for Developers to:

- Check if your SPF record is published in DNS
- Check your SPF record is valid and allows the servers you expect
- Validate a record before you publish it in DNS

## Usage

If you wish to test a live SPF record, enter the domain name the SPF record belongs to in the "Domain name to check" field.

If you wish to test a record before publishing it, enter the content of the record in the "SPF record text" field.

## Results

Whichever option you have chosen, the results will be the same.

The actual SPF record analysed will be displayed, followed by a breakdown of the servers that are present in the SPF record, and an indication of whether they are authorised to send e-mails on behalf of the domain.

The example below shows the analysis of the SPF record for simplyremind.me. This record imports the SPF rules from the amazonses.com domain, which in turn allows the following IP addresses to send e-mails addressed from @simplyremind.me: 199.255.192.0/22, 199.127.232.0/22 and 54.240.0.0/18.

```
v=spf1 include:amazonses.com ~all
```

Included from **amazonses.com**:

Sender's IP address matches **199.255.192.0/22**  
The message will be allowed to send

Sender's IP address matches **199.127.232.0/22**  
The message will be allowed to send

Sender's IP address matches **54.240.0.0/18**  
The message will be allowed to send

All messages not matching any other rule  
The message would not normally be allowed to send