

NAME

host – DNS lookup utility

SYNOPSIS

host [-aACdlrsTUwv] [-c class] [-N ndots] [-p port] [-R number] [-t type] [-W wait] [-m flag] [[-4] | [-6]] [-v] [-V] {name} [server]

DESCRIPTION

host is a simple utility for performing DNS lookups. It is normally used to convert names to IP addresses and vice versa. When no arguments or options are given, **host** prints a short summary of its command-line arguments and options.

name is the domain name that is to be looked up. It can also be a dotted-decimal IPv4 address or a colon-delimited IPv6 address, in which case **host** by default performs a reverse lookup for that address.

server is an optional argument which is either the name or IP address of the name server that **host** should query instead of the server or servers listed in **/etc/resolv.conf**.

OPTIONS

- 4** This option specifies that only IPv4 should be used for query transport. See also the **-6** option.
- 6** This option specifies that only IPv6 should be used for query transport. See also the **-4** option.
- a** The **-a** ("all") option is normally equivalent to **-v -t ANY**. It also affects the behavior of the **-l** list zone option.
- A** The **-A** ("almost all") option is equivalent to **-a**, except that RRSIG, NSEC, and NSEC3 records are omitted from the output.
- c class** This option specifies the query class, which can be used to lookup HS (Hesiod) or CH (Chaosnet) class resource records. The default class is IN (Internet).
- C** This option indicates that **named** should check consistency, meaning that **host** queries the SOA records for zone **name** from all the listed authoritative name servers for that zone. The list of name servers is defined by the NS records that are found for the zone.
- d** This option prints debugging traces, and is equivalent to the **-v** verbose option.
- l** This option tells **named** to list the zone, meaning the **host** command performs a zone transfer of zone **name** and prints out the NS, PTR, and address records (A/AAAA).

Together, the **-l -a** options print all records in the zone.

-N ndots

This option specifies the number of dots (**ndots**) that have to be in **name** for it to be considered absolute. The default value is that defined using the **ndots** statement in **/etc/resolv.conf**, or 1 if no **ndots** statement is present. Names with fewer dots are interpreted as relative names, and are searched for in the domains listed in the **search** or **domain** directive in **/etc/resolv.conf**.

-p port

This option specifies the port to query on the server. The default is 53.

-r

This option specifies a non-recursive query; setting this option clears the RD (recursion desired) bit in the query. This means that the name server receiving the query does not attempt to resolve **name**. The **-r** option enables **host** to mimic the behavior of a name server by making non-recursive queries, and expecting to receive answers to those queries that can be referrals to other name servers.

-R number

This option specifies the number of retries for UDP queries. If **number** is negative or zero, the number of retries is silently set to 1. The default value is 1, or the value of the **attempts** option in **/etc/resolv.conf**, if set.

- s** This option tells **named** *not* to send the query to the next nameserver if any server responds with a SERVFAIL response, which is the reverse of normal stub resolver behavior.
- t type** This option specifies the query type. The **type** argument can be any recognized query type: CNAME, NS, SOA, TXT, DNSKEY, AXFR, etc.

When no query type is specified, **host** automatically selects an appropriate query type. By default, it looks for A, AAAA, and MX records. If the **-C** option is given, queries are made for SOA records. If **name** is a dotted-decimal IPv4 address or colon-delimited IPv6 address, **host** queries for PTR records.

If a query type of IXFR is chosen, the starting serial number can be specified by appending an equals sign (=), followed by the starting serial number, e.g., **-t IXFR=12345678**.

- T; -U** This option specifies TCP or UDP. By default, **host** uses UDP when making queries; the **-T** option makes it use a TCP connection when querying the name server. TCP is automatically selected for queries that require it, such as zone transfer (AXFR) requests. Type **ANY** queries default to TCP, but can be forced to use UDP initially via **-U**.

- m flag** This option sets memory usage debugging: the flag can be **record**, **usage**, or **trace**. The **-m** option can be specified more than once to set multiple flags.

- v** This option sets verbose output, and is equivalent to the **-d** debug option. Verbose output can also be enabled by setting the **debug** option in **/etc/resolv.conf**.

- V** This option prints the version number and exits.

- w** This option sets "wait forever": the query timeout is set to the maximum possible. See also the **-W** option.

- W wait** This options sets the length of the wait timeout, indicating that **named** should wait for up to **wait** seconds for a reply. If **wait** is less than 1, the wait interval is set to 1 second.

By default, **host** waits for 5 seconds for UDP responses and 10 seconds for TCP connections. These defaults can be overridden by the **timeout** option in **/etc/resolv.conf**.

See also the **-w** option.

IDN SUPPORT

If **host** has been built with IDN (internationalized domain name) support, it can accept and display non-ASCII domain names. **host** appropriately converts character encoding of a domain name before sending a request to a DNS server or displaying a reply from the server. To turn off IDN support, define the **IDN_DISABLE** environment variable. IDN support is disabled if the variable is set when **host** runs.

FILES

/etc/resolv.conf

SEE ALSO

dig(1), **named(8)**.

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