NAME

host - DNS lookup utility

SYNOPSIS

host [-**aCdlnrsTwv**] [-**c** *class*] [-**N** *ndots*] [-**R** *number*] [-**t** *type*] [-**W** *wait*] [-**m** *flag*] [-**4**] [-**6**]
{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** will by default perform 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*.

The **-a** (all) option is equivalent to setting the **-v** option and asking **host** to make a query of type
ANY.

When the **-C** option is used, **host** will attempt to display 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.

The **-c** option instructs to make a DNS query of class *class*. This can be used to lookup Hesiod or
Chaosnet class resource records. The default class is IN (Internet).

Verbose output is generated by **host** when the **-d** or **-v** option is used. The two options are
equivalent. They have been provided for backwards compatibility. In previous versions, the **-d**
option switched on debugging traces and **-v** enabled verbose output.

List mode is selected by the **-l** option. This makes **host** perform a zone transfer for zone *name*.
Transfer the zone printing out the NS, PTR and address records (A/AAAA). If combined with **-a**
all records will be printed.

The **-i** option specifies that reverse lookups of IPv6 addresses should use the IP6.INT domain as
defined in RFC1886. The default is to use IP6.ARPA.

The **-N** option sets the number of dots 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 will be
searched for in the domains listed in the **search** or **domain** directive in */etc/resolv.conf*.

The number of UDP retries for a lookup can be changed with the **-R** option. *number* indicates
how many times **host** will repeat a query that does not get answered. The default number of
retries is 1. If *number* is negative or zero, the number of retries will default to 1.

Non-recursive queries can be made via the **-r** option. Setting this option clears the **RD** —
recursion desired — bit in the query which **host** makes. This should mean that the name server
receiving the query will 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 are usually referrals to other name servers.

By default, **host** uses UDP when making queries. The **-T** option makes it use a TCP connection
when querying the name server. TCP will be automatically selected for queries that require it,
such as zone transfer (AXFR) requests.

The **-4** option forces **host** to only use IPv4 query transport. The **-6** option forces **host** to only
use IPv6 query transport.

The **-t** option is used to select the query type. *type* can be any recognized query type: CNAME,
NS, SOA, SIG, KEY, 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, but if the **-C** option

was given, queries will be made for SOA records, and if *name* is a dotted-decimal IPv4 address or colon-delimited IPv6 address, **host** will query for PTR records. If a query type of IXFR is chosen the starting serial number can be specified by appending an equal followed by the starting serial number (e.g. -t IXFR=12345678).

The time to wait for a reply can be controlled through the **-W** and **-w** options. The **-W** option makes **host** wait for *wait* seconds. If *wait* is less than one, the wait interval is set to one second. When the **-w** option is used, **host** will effectively wait forever for a reply. The time to wait for a response will be set to the number of seconds given by the hardware's maximum value for an integer quantity.

The **-s** option tells **host** *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.

The **-m** can be used to set the memory usage debugging flags *record*, *usage* and *trace*.

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 domain name before sending a request to DNS server or displaying a reply from the server. If you'd like to turn off the IDN support for some reason, defines the **IDN_DISABLE** environment variable. The 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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