



Host

Introduction and Overview

Host looks for information about Internet hosts without using the Resolver module. It gets this information from a set of interconnected servers that are spread across the world. By default, it simply converts between host names and Internet addresses. However with the `-t` or `-a` options, it can be used to find all of the information about this host that is maintained by the domain server.

Technical details

The arguments can be either host names or host numbers. The program first attempts to interpret them as host numbers. If this fails, it will treat them as host names. A host number consists of first decimal numbers separated by dots, e.g. 128.6.4.194. A host name consists of names separated by dots, e.g. topaz.rutgers.edu. Unless the name ends in a dot, the local domain is automatically tacked on the end. Thus a Rutgers user can say "host topaz", and it will actually look up "topaz.rutgers.edu". If this fails, the name is tried unchanged (in this case, "topaz"). This same convention is used for mail and other network utilities. The actual suffix to tack on the end is obtained by looking at the results of a "hostname" call, and using everything starting at the first dot.

The arguments are the host names you want to look up. If any are host numbers, an "inverse query" is done, i.e. the domain system looks in a separate set of databases used to convert numbers to names.

If a name is specified, you may see output of three different kinds. Here is an example that shows all of them:

```
% host sun4
sun4.rutgers.edu is a nickname for ATHOS.RUTGERS.EDU
ATHOS.RUTGERS.EDU has address 128.6.5.46
ATHOS.RUTGERS.EDU has address 128.6.4.4
ATHOS.RUTGERS.EDU mail is handled by ARAMIS.RUTGERS.EDU
```

The user has typed the command "host sun4". The first line indicates that the name "sun4.rutgers.edu" is actually a nickname. The official host name is "ATHOS.RUTGERS.EDU". The next two lines show the address. If a system has more than one network interface, there will be a separate address for each. The last line indicates that ATHOS.RUTGERS.EDU does not receive its own mail. Mail for it is taken by ARAMIS.RUTGERS.EDU. There may be more than one such line, since some systems have more than one other system that will handle mail for them. Technically, every system that can receive mail is supposed to have an entry of this kind. If the system receives its own mail, there should be an entry the mentions the system itself, for example "XXX mail is handled by XXX". However many systems that receive their own mail do not bother to mention that fact. If a system has a "mail is handled by" entry, but no address, this indicates that it is not really part of the Internet, but a system that is on the network will forward mail to it.

There are a number of options that can be used before the host name. Most of these options are meaningful only to the staff who have to maintain the domain database.

The `-t` option is used to filter what information is presented, as you would expect. The default is address information, which also include PTR and NS records. The command :

`host -l -v -t any rutgers.edu`

will give a complete download of the zone data for `rutgers.edu`, in the official master file format. (However the SOA record is listed twice, for arcane reasons.) NOTE: `-l` is implemented by doing a complete zone transfer and then filtering out the information the you have asked for. This command should be used only if it is absolutely necessary.

*Commands

*Host

Resolve information about a host directly

Syntax

```
*Host [-l] [-v] [-w] [-r] [-d] [-t <type>] [-a] [-s  
<server>] <host>
```

Parameters

- help - Display help message
- l - List a complete domain
- v - Use verbose output. This is the official domain master file format, which is used almost exclusively by unix systems and widely by others. Without this option, output still follows this format in general terms, but some attempt is made to make it more intelligible to normal users.
- w - Causes host to wait forever for a response. Normally it will time out after around a minute.
- r - Causes recursion to be turned off in the request. This means that the name server will return only data it has in its own database. It will not ask other servers for more information.
- d - Turns on debugging. Network transactions are shown in detail.
- t <type> - Select information to display. Currently supported types may be obtained by specifying an invalid option such as '?'.
- a - Show all details (equivalent to '-v -t *')
- s <server> - Select server to query for information.
- <host> - Host name, or other entity, to resolve

Use

This command attempts to resolve the host name specified by communicating directly with the servers. If an address could be resolved, it will be displayed.

Examples

```
*Host bingle.org
```

Related APIs

None

Document information

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1 ROL Initial version

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