

NAME

netgroup - defines network groups

SYNOPSIS

netgroup

DESCRIPTION

The **netgroup** file specifies “netgroups”, which are sets of (**host, user, domain**) tuples that are to be given similar network access.

Each line in the file consists of a netgroup name followed by a list of the members of the netgroup. Each member can be either the name of another netgroup or a specification of a tuple as follows:

(host, user, domain)

where the **host**, **user**, and **domain** are character string names for the corresponding component. Any of the comma separated fields may be empty to specify a “wildcard” value or may consist of the string “-” to specify “no valid value”. The members of the list may be separated by whitespace and/or commas; the “\” character may be used at the end of a line to specify line continuation. Lines are limited to 1024 characters. The functions specified in `getnetgrent(3)` should normally be used to access the **netgroup** database.

Lines that begin with a # are treated as comments.

NIS/YP INTERACTION

On most other platforms, **netgroups** are only used in conjunction with NIS and local `/etc/netgroup` files are ignored. With FreeBSD, **netgroups** can be used with either NIS or local files, but there are certain caveats to consider. The existing **netgroup** system is extremely inefficient where `innnetgr(3)` lookups are concerned since **netgroup** memberships are computed on the fly. By contrast, the NIS **netgroup** database consists of three separate maps (`netgroup`, `netgroup.byuser` and `netgroup.byhost`) that are keyed to allow `innnetgr(3)` lookups to be done quickly. The FreeBSD **netgroup** system can interact with the NIS **netgroup** maps in the following ways:

- If the `/etc/netgroup` file does not exist, or it exists and is empty, or it exists and contains only a ‘+’, and NIS is running, **netgroup** lookups will be done exclusively through NIS, with `innnetgr(3)` taking advantage of the `netgroup.byuser` and `netgroup.byhost` maps to speed up searches. (This is more or less compatible with the behavior of SunOS and similar platforms.)
- If the `/etc/netgroup` exists and contains only local **netgroup** information (with no NIS ‘+’ token), then only the local **netgroup** information will be processed (and NIS will be ignored).

- If */etc/netgroup* exists and contains both local netgroup data *and* the NIS '+' token, the local data and the NIS netgroup map will be processed as a single combined **netgroup** database. While this configuration is the most flexible, it is also the least efficient: in particular, **innetgr(3)** lookups will be especially slow if the database is large.

FILES

/etc/netgroup the netgroup database

COMPATIBILITY

The file format is compatible with that of various vendors, however it appears that not all vendors use an identical format.

SEE ALSO

getnetgrent(3), *exports(5)*

BUGS

The interpretation of access restrictions based on the member tuples of a netgroup is left up to the various network applications. Also, it is not obvious how the domain specification applies to the BSD environment.

The **netgroup** database should be stored in the form of a hashed *db(3)* database just like the *passwd(5)* database to speed up reverse lookups.