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, **netgroup**s are only used in conjunction with NIS and local */etc/netgroup* files are ignored. With FreeBSD, **netgroup**s can be used with either NIS or local files, but there are certain caveats to consider. The existing **netgroup** system is extremely inefficient where **innetgr**(*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 **innetgr**(*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 **innetgr**(*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.