

NAME

setnetgrent, endnetgrent, getnetgrent, getnetgrent_r, innetgr – handle network group entries

LIBRARY

Standard C library (*libc*, *-lc*)

SYNOPSIS

```
#include <netdb.h>

int setnetgrent(const char *netgroup);
void endnetgrent(void);

int getnetgrent(char **restrict host,
                char **restrict user, char **restrict domain);
int getnetgrent_r(char **restrict host,
                  char **restrict user, char **restrict domain,
                  char buf[restrict .buflen], size_t buflen);

int innetgr(const char *netgroup, const char *host,
            const char *user, const char *domain);
```

Feature Test Macro Requirements for glibc (see **feature_test_macros(7)**):

setnetgrent(), **endnetgrent()**, **getnetgrent()**, **getnetgrent_r()**, **innetgr()**:

Since glibc 2.19:

`_DEFAULT_SOURCE`

glibc 2.19 and earlier:

`_BSD_SOURCE` || `_SVID_SOURCE`

DESCRIPTION

The *netgroup* is a SunOS invention. A netgroup database is a list of string triples (*hostname*, *username*, *domainname*) or other netgroup names. Any of the elements in a triple can be empty, which means that anything matches. The functions described here allow access to the netgroup databases. The file */etc/nsswitch.conf* defines what database is searched.

The **setnetgrent()** call defines the netgroup that will be searched by subsequent **getnetgrent()** calls. The **getnetgrent()** function retrieves the next netgroup entry, and returns pointers in *host*, *user*, *domain*. A null pointer means that the corresponding entry matches any string. The pointers are valid only as long as there is no call to other netgroup-related functions. To avoid this problem you can use the GNU function **getnetgrent_r()** that stores the strings in the supplied buffer. To free all allocated buffers use **endnetgrent()**.

In most cases you want to check only if the triplet (*hostname*, *username*, *domainname*) is a member of a netgroup. The function **innetgr()** can be used for this without calling the above three functions. Again, a null pointer is a wildcard and matches any string. The function is thread-safe.

RETURN VALUE

These functions return 1 on success and 0 for failure.

FILES

/etc/netgroup

/etc/nsswitch.conf

ATTRIBUTES

For an explanation of the terms used in this section, see **attributes(7)**.

Interface	Attribute	Value
setnetgrent() , getnetgrent_r() , innetgr()	Thread safety	MT-Unsafe race:netgrent locale
endnetgrent()	Thread safety	MT-Unsafe race:netgrent
getnetgrent()	Thread safety	MT-Unsafe race:netgrent race:netgrentbuf locale

In the above table, *netgrent* in *race:netgrent* signifies that if any of the functions **setnetgrent()**, **getnet-**

grent_r(), **innetgr()**, **getnetgrent()**, or **endnetgrent()** are used in parallel in different threads of a program, then data races could occur.

STANDARDS

These functions are not in POSIX.1, but **setnetgrent()**, **endnetgrent()**, **getnetgrent()**, and **innetgr()** are available on most UNIX systems. **getnetgrent_r()** is not widely available on other systems.

NOTES

In the BSD implementation, **setnetgrent()** returns void.

SEE ALSO

sethostent(3), **setprotoent(3)**, **setservent(3)**