

NAME

getnetent, getnetbyname, getnetbyaddr, setnetent, endnetent – get network entry

LIBRARY

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

SYNOPSIS

```
#include <netdb.h>

struct netent *getnetent(void);

struct netent *getnetbyname(const char *name);
struct netent *getnetbyaddr(uint32_t net, int type);

void setnetent(int stayopen);
void endnetent(void);
```

DESCRIPTION

The **getnetent()** function reads the next entry from the networks database and returns a *netent* structure containing the broken-out fields from the entry. A connection is opened to the database if necessary.

The **getnetbyname()** function returns a *netent* structure for the entry from the database that matches the network *name*.

The **getnetbyaddr()** function returns a *netent* structure for the entry from the database that matches the network number *net* of type *type*. The *net* argument must be in host byte order.

The **setnetent()** function opens a connection to the database, and sets the next entry to the first entry. If *stayopen* is nonzero, then the connection to the database will not be closed between calls to one of the **getnet*()** functions.

The **endnetent()** function closes the connection to the database.

The *netent* structure is defined in *<netdb.h>* as follows:

```
struct netent {
    char      *n_name;      /* official network name */
    char      **n_aliases;  /* alias list */
    int        n_addrtype;  /* net address type */
    uint32_t   n_net;       /* network number */
}
```

The members of the *netent* structure are:

n_name

The official name of the network.

n_aliases

A NULL-terminated list of alternative names for the network.

n_addrtype

The type of the network number; always **AF_INET**.

n_net

The network number in host byte order.

RETURN VALUE

The **getnetent()**, **getnetbyname()**, and **getnetbyaddr()** functions return a pointer to a statically allocated *netent* structure, or a null pointer if an error occurs or the end of the file is reached.

FILES

/etc/networks

networks database file

ATTRIBUTES

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

| Interface | Attribute | Value |
|---|---------------|---|
| getnetent() | Thread safety | MT-Unsafe race:netent race:netentbuf env locale |
| getnetbyname() | Thread safety | MT-Unsafe race:netbyname env locale |
| getnetbyaddr() | Thread safety | MT-Unsafe race:netbyaddr locale |
| setnetent() , endnetent() | Thread safety | MT-Unsafe race:netent env locale |

In the above table, *netent* in *race:netent* signifies that if any of the functions **setnetent()**, **getnetent()**, or **endnetent()** are used in parallel in different threads of a program, then data races could occur.

STANDARDS

POSIX.1-2001, POSIX.1-2008, 4.3BSD.

NOTES

Before glibc 2.2, the *net* argument of **getnetbyaddr()** was of type *long*.

SEE ALSO

getnetent_r(3), **getprotoent(3)**, **getservent(3)**
RFC 1101