

**NAME**

**getnetent**, **getnetbyaddr**, **getnetbyname**, **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*);

*int*

**getnetent\_r**(*struct netent \*ne*, *char \*buffer*, *size\_t buflen*, *struct netent \*\*result*, *int \*h\_errnop*);

*int*

**getnetbyaddr\_r**(*uint32\_t net*, *int type*, *struct netent \*ne*, *char \*buffer*, *size\_t buflen*, *struct netent \*\*result*, *int \*h\_errorp*);

*int*

**getnetbyname\_r**(*const char \*name*, *struct netent \*ne*, *char \*buffer*, *size\_t buflen*, *struct netent \*\*result*, *int \*h\_errorp*);

**DESCRIPTION**

The **getnetent()**, **getnetbyname()**, and **getnetbyaddr()** functions each return a pointer to an object with the following structure describing an internet network. This structure contains either the information obtained from the nameserver, broken-out fields of a line in the network data base */etc/networks*, or entries supplied by the yp(8) system. The order of the lookups is controlled by the 'networks' entry in

nsswitch.conf(5).

```

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

```

The members of this structure are:

*n\_name*     The official name of the network.

*n\_aliases*   A zero terminated list of alternate names for the network.

*n\_addrtype*   The type of the network number returned; currently only AF\_INET.

*n\_net*        The network number. Network numbers are returned in machine byte order.

The **getnetent()** function reads the next line of the file, opening the file if necessary.

The **setnetent()** function opens and rewinds the file. If the *stayopen* flag is non-zero, the net data base will not be closed after each call to **getnetbyname()** or **getnetbyaddr()**.

The **endnetent()** function closes the file.

The **getnetbyname()** function and **getnetbyaddr()** sequentially search from the beginning of the file until a matching net name or net address and type is found, or until EOF is encountered. The *type* argument must be AF\_INET. Network numbers are supplied in host order.

Functions with the *\_r* suffix provide reentrant versions of their respective counterparts. The caller must supply five additional parameters: a *struct netent* variable to be filled on success, a *buffer* of *buflen* bytes in size, a *struct netent result* variable that will point to the result on success or be set to NULL on failure or if the name is not found. The *h\_errnop* variable will be filled with the error code if any. All these functions return 0 on success.

## FILES

*/etc/networks*  
*/etc/nsswitch.conf*  
*/etc/resolv.conf*

**DIAGNOSTICS**

Null pointer returned on EOF or error.

**SEE ALSO**

networks(5)

*RFC 1101*

**HISTORY**

The **getnetent()**, **getnetbyaddr()**, **getnetbyname()**, **setnetent()**, and **endnetent()** functions appeared in 4.2BSD.

**BUGS**

The data space used by these functions is thread-specific; if future use requires the data, it should be copied before any subsequent calls to these functions overwrite it. Only Internet network numbers are currently understood. Expecting network numbers to fit in no more than 32 bits is probably naive.