NAME

getipnodebyname, getipnodebyaddr, freehostent - get network hostnames and addresses

SYNOPSIS

#include <sys/types.h>
#include <sys/socket.h>
#include <netdb.h>

struct hostent *getipnodebyname(const char ****name*, **int *af*,
int *flags*, **int ****error_num*);

struct hostent *getipnodebyaddr(const void ****addr*, **size_t *len*,
int *af*, **int ****error_num*);

**void freehostent(struct hostent ****ip*);

DESCRIPTION

These functions are deprecated (and unavailable in glibc). Use getaddrinfo(3) and getnameinfo(3) instead.

The **getipnodebyname**() and **getipnodebyaddr**() functions return the names and addresses of a network host. These functions return a pointer to the following structure:

```
struct hostent {
char *h_name;
char **h_aliases;
int h_addrtype;
int h_length;
char **h_addr_list;
};
```

These functions replace the gethostbyname(3) and gethostbyaddr(3) functions, which could access only the IPv4 network address family. The**getipnodeb yname**() and **getipnodebyaddr**() functions can access multiple network address families.

Unlike the **gethostby** functions, these functions return pointers to dynamically allocated memory. The**freehosten t**() function is used to release the dynamically allocated memory after the caller no longer needs the *hostent* structure.

getipnodebyname() arguments

The **getipnodebyname**() function looks up network addresses for the host specified by the *name* argument. The*af* argumen t specifies one of the following values:

AF_INET
The *name* argument points to a dotted-quad IPv4 address or a name of an IPv4 network host.

AF_INET6
The *name* argument points to a hexadecimal IPv6 address or a name of an IPv6 network host.

The *flags* argument specifies additional options. More than one option can be specified by bitwise OR-ing them together. *flags* should be set to 0 if no options are desired.

AI_V4MAPPED
This flag is used with **AF_INET6** to request a query for IPv4 addresses instead of IPv6 addresses; the IPv4 addresses will be mapped to IPv6 addresses.

AI_ALL
This flag is used with **AI_V4MAPPED** to request a query for both IPv4 and IPv6 addresses. Any IPv4 address found will be mapped to an IPv6 address.

AI_ADDRCONFIG

This flag is used with **AF_INET6** to further request that queries for IPv6 addresses should not be made unless the system has at least one IPv6 address assigned to a network interface, and that queries for IPv4 addresses should not be made unless the system has at least one IPv4 address assigned to a network interface. This flag may be used by itself or with the **AI_V4MAPPED** flag.

AI_DEFAULT

This flag is equivalent to **(AI_ADDRCONFIG | AI_V4MAPPED)**.

getipnodebyaddr() arguments

The **getipnodebyaddr**() function looks up the name of the host whose network address is specified by the *addr* argument. The*af* argumen t specifies one of the following values:

AF_INET

The *addr* argument points to a *struct in_addr* and *len* must be set to *sizeof(struct in_addr)*.

AF_INET6

The *addr* argument points to a *struct in6_addr* and *len* must be set to *sizeof(struct in6_addr)*.

RETURN VALUE

NULL is returned if an error occurred, and *error_num* will contain an error code from the following list:

HOST_NOT_FOUND

The hostname or network address was not found.

NO_ADDRESS

The domain name server recognized the network address or name, but no answer was returned. This can happen if the network host has only IPv4 addresses and a request has been made for IPv6 information only, or vice versa.

NO_RECOVERY

The domain name server returned a permanent failure response.

TRY_AGAIN

The domain name server returned a temporary failure response. You might have better luck next time.

A successful query returns a pointer to a *hostent* structure that contains the following fields:

h_name

This is the official name of this network host.

h_aliases

This is an array of pointers to unofficial aliases for the same host. The array is terminated by a null pointer.

h_addrtype

This is a copy of the *af* argument to **getipnodebyname**() or **getipnodebyaddr**(). *h_addrtype* will always be **AF_INET** if the *af* argument was **AF_INET**. *h_addrtype* will always be **AF_INET6** if the *af* argument was **AF_INET6**.

h_length

This field will be set to *sizeof(struct in_addr)* if *h_addrtype* is **AF_INET**, and to *sizeof(struct in6_addr)* if *h_addrtype* is **AF_INET6**.

h_addr_list

This is an array of one or more pointers to network address structures for the network host. The array is terminated by a null pointer.

CONFORMING TO

RFC 2553.

NOTES

These functions were present in glibc 2.1.91-95, but were removed again. Several UNIX-like systems support them, but all call them deprecated.

SEE ALSO

getaddrinfo(3), getnameinfo(3), inet_ntop(3), inet_pton(3)

COLOPHON

This page is part of release 3.74 of the Linux *man-pages* project. A description of the project, information about reporting bugs, and the latest version of this page, can be found at http://www.kernel.org/doc/man-pages/.