



Rocky Enterprise Linux 9.2 Manual Pages on command 'getipnodebyaddr.3'

\$ man getipnodebyaddr.3

GETIPNODEBYNAME(3) Linux Programmer's Manual GETIPNODEBYNAME(3)

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 `getipnodebyname()` and `getipnodebyaddr()` functions can access multiple network address families.

Unlike the `gethostby` functions, these functions return pointers to dynamically allocated memory. The `freehostent()` 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` argument 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** argument 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 con?

tains 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 dep?

recated.

SEE ALSO

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

COLOPHON

This page is part of release 5.10 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 <https://www.kernel.org/doc/man-pages/>.

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