



Rocky Enterprise Linux 9.2 Manual Pages on command 'gethostname.2'

\$ man gethostname.2

GETHOSTNAME(2) Linux Programmer's Manual GETHOSTNAME(2)

NAME

gethostname, sethostname - get/set hostname

SYNOPSIS

```
#include <unistd.h>
```

```
int gethostname(char *name, size_t len);
```

```
int sethostname(const char *name, size_t len);
```

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

gethostname():

Since glibc 2.12: `_BSD_SOURCE || _XOPEN_SOURCE >= 500`

`|| /* Since glibc 2.12: */ _POSIX_C_SOURCE >= 200112L`

sethostname():

Since glibc 2.21:

`_DEFAULT_SOURCE`

In glibc 2.19 and 2.20:

`_DEFAULT_SOURCE || (_XOPEN_SOURCE && _XOPEN_SOURCE < 500)`

Up to and including glibc 2.19:

`_BSD_SOURCE || (_XOPEN_SOURCE && _XOPEN_SOURCE < 500)`

DESCRIPTION

These system calls are used to access or to change the system hostname.

More precisely, they operate on the hostname associated with the calling process's UTS namespace.

`sethostname()` sets the hostname to the value given in the character array `name`. The `len` argument specifies the number of bytes in `name`. (Thus, `name` does not require a terminating null byte.)

`gethostname()` returns the null-terminated hostname in the character array `name`, which has a length of `len` bytes. If the null-terminated hostname is too large to fit, then the name is truncated, and no error is returned (but see NOTES below). POSIX.1 says that if such truncation occurs, then it is unspecified whether the returned buffer includes a terminating null byte.

RETURN VALUE

On success, zero is returned. On error, -1 is returned, and `errno` is set appropriately.

ERRORS

`EFAULT` `name` is an invalid address.

`EINVAL` `len` is negative or, for `sethostname()`, `len` is larger than the maximum allowed size.

`ENAMETOOLONG`

(glibc `gethostname()`) `len` is smaller than the actual size. (Before version 2.1, glibc uses `EINVAL` for this case.)

`EPERM` For `sethostname()`, the caller did not have the `CAP_SYS_ADMIN` capability in the user namespace associated with its UTS namespace (see `namespaces(7)`).

CONFORMING TO

SVr4, 4.4BSD (these interfaces first appeared in 4.2BSD).

POSIX.1-2001 and POSIX.1-2008 specify `gethostname()` but not `sethostname()`.

NOTES

SUSv2 guarantees that "Host names are limited to 255 bytes". POSIX.1 guarantees that "Host names (not including the terminating null byte)

are limited to HOST_NAME_MAX bytes". On Linux, HOST_NAME_MAX is defined with the value 64, which has been the limit since Linux 1.0 (earlier kernels imposed a limit of 8 bytes).

C library/kernel differences

The GNU C library does not employ the gethostname() system call; instead, it implements gethostname() as a library function that calls uname(2) and copies up to len bytes from the returned nodename field into name. Having performed the copy, the function then checks if the length of the nodename was greater than or equal to len, and if it is, then the function returns -1 with errno set to ENAMETOOLONG; in this case, a terminating null byte is not included in the returned name.

Versions of glibc before 2.2 handle the case where the length of the nodename was greater than or equal to len differently: nothing is copied into name and the function returns -1 with errno set to ENAMETOOLONG.

SEE ALSO

hostname(1), getdomainname(2), setdomainname(2), uname(2), uts_namespaces(7)

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/>.