



Red Hat Enterprise Linux Release 9.2 Manual Pages on 'ether_aton_r.3' command

\$ man ether_aton_r.3

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

NAME

ether_aton, ether_ntoa, ether_ntohost, ether_hostton, ether_line,
ether_ntoa_r, ether_aton_r - Ethernet address manipulation routines

SYNOPSIS

```
#include <netinet/ether.h>

char *ether_ntoa(const struct ether_addr *addr);

struct ether_addr *ether_aton(const char *asc);

int ether_ntohost(char *hostname, const struct ether_addr *addr);

int ether_hostton(const char *hostname, struct ether_addr *addr);

int ether_line(const char *line, struct ether_addr *addr,
               char *hostname);

/* GNU extensions */

char *ether_ntoa_r(const struct ether_addr *addr, char *buf);

struct ether_addr *ether_aton_r(const char *asc,
                                struct ether_addr *addr);
```

DESCRIPTION

ether_aton() converts the 48-bit Ethernet host address asc from the standard hex-digits-and-colons notation into binary data in network byte order and returns a pointer to it in a statically allocated buffer, which subsequent calls will overwrite. ether_aton() returns NULL if the address is invalid.

The ether_ntoa() function converts the Ethernet host address addr given

in network byte order to a string in standard hex-digits-and-colons notation, omitting leading zeros. The string is returned in a statically allocated buffer, which subsequent calls will overwrite.

The `ether_ntohost()` function maps an Ethernet address to the corresponding hostname in `/etc/ethers` and returns nonzero if it cannot be found.

The `ether_hostton()` function maps a hostname to the corresponding Ethernet address in `/etc/ethers` and returns nonzero if it cannot be found.

The `ether_line()` function parses a line in `/etc/ethers` format (ethernet address followed by whitespace followed by hostname; '#' introduces a comment) and returns an address and hostname pair, or nonzero if it cannot be parsed. The buffer pointed to by hostname must be sufficiently long, for example, have the same length as line.

The functions `ether_ntoa_r()` and `ether_aton_r()` are reentrant thread-safe versions of `ether_ntoa()` and `ether_aton()` respectively, and do not use static buffers.

The structure `ether_addr` is defined in `<net/ethernet.h>` as:

```
struct ether_addr {
    uint8_t ether_addr_octet[6];
}
```

ATTRIBUTES

For an explanation of the terms used in this section, see [attributes\(7\)](#).

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?Interface ? Attribute ? Value ?

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?`ether_aton()`, `ether_ntoa()` ? Thread safety ? MT-Unsafe ?

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?`ether_ntohost()`, `ether_hostton()`, ? Thread safety ? MT-Safe ?

?`ether_line()`, `ether_ntoa_r()`, ? ? ?

?`ether_aton_r()` ? ? ?

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4.3BSD, SunOS.

BUGS

In glibc 2.2.5 and earlier, the implementation of ether_line() is broken.

SEE ALSO

ethers(5)

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/>.

GNU

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