



Linux Ubuntu 26.04 Manual Pages on command 'ether_aton_r.3'

\$ man ether_aton_r.3

ether_aton(3) Library Functions 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

LIBRARY

Standard C library (libc, -lc)

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 host name 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)`.

[illegible]

?	Interface	?	Attribute	?	Value	?
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[illegible]

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

[illegible]

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

? ether_ntoa_r(), ether_aton_r()	?	?	?
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[illegible]

STANDARDS

None.

HISTORY

4.3BSD, SunOS.

BUGS

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

SEE ALSO

[ethers\(5\)](#)

[Linux man-pages 6.17](#)

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[ether_aton\(3\)](#)