NAME

eui64, **eui64_aton**, **eui64_ntoa**, **eui64_ntohost**, **eui64_hostton** - IEEE EUI-64 conversion and lookup routines

LIBRARY

Standard C Library (libc, -lc)

SYNOPSIS

#include <sys/types.h>
#include <sys/eui64.h>

int
eui64_aton(*const char *a*, *struct eui64 *e*);

int
eui64_ntoa(*const struct eui64 *id*, *char *a*, *size_t len*);

int
eui64_ntohost(*char *hostname*, *size_t len*, *const struct eui64 *id*);

int
eui64_hostton(*const char *hostname*, *struct eui64 *id*);

DESCRIPTION

These functions operate on IEEE EUI-64s using an *eui64* structure, which is defined in the header file *<sys/eui64.h>*:

```
/*
 * The number of bytes in an EUI-64.
 */
#define EUI64_LEN               8

/*
 * Structure of an IEEE EUI-64.
 */
struct  eui64 {
    u_char octet[EUI64_LEN];
};
```

The **eui64_aton**() function converts an ASCII representation of an EUI-64 into an *eui64* structure.

Likewise, **eui64_ntoa**() converts an EUI-64 specified as an *eui64* structure into an ASCII string.

The **eui64_ntohost**() and **eui64_hostton**() functions map EUI-64s to their corresponding hostnames as specified in the */etc/eui64* database. The **eui64_ntohost**() function converts from EUI-64 to hostname, and **eui64_hostton**() converts from hostname to EUI-64.

RETURN VALUES

On success, **eui64_ntoa**() returns a pointer to a string containing an ASCII representation of an EUI-64. If it is unable to convert the supplied *eui64* structure, it returns a NULL pointer. Likewise, **eui64_aton**() returns a pointer to an *eui64* structure on success and a NULL pointer on failure.

The **eui64_ntohost**() and **eui64_hostton**() functions both return zero on success or non-zero if they were unable to find a match in the */etc/eui64* database.

NOTES

The user must ensure that the hostname strings passed to the **eui64_ntohost**() and **eui64_hostton**() functions are large enough to contain the returned hostnames.

NIS INTERACTION

If the */etc/eui64* contains a line with a single '+' in it, the **eui64_ntohost**() and **eui64_hostton**() functions will attempt to consult the NIS *eui64.byname* and *eui64.byid* maps in addition to the data in the */etc/eui64* file.

SEE ALSO

firewire(4), eui64(5), yp(8)

HISTORY

These functions first appears in FreeBSD 5.3. They are derived from the ethers(3) family of functions.