

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.