

## NAME

`ne_addr_resolve`, `ne_addr_result`, `ne_addr_first`, `ne_addr_next`, `ne_addr_error`, `ne_addr_destroy` - functions to resolve hostnames to addresses

## SYNOPSIS

```
#include <ne_socket.h>
```

```
ne_sock_addr *ne_addr_resolve(const char *hostname, int flags);
```

```
int ne_addr_result(const ne_sock_addr *addr);
```

```
const ne_inet_addr *ne_addr_first(ne_sock_addr *addr);
```

```
const ne_inet_addr *ne_addr_next(ne_sock_addr *addr);
```

```
char *ne_addr_error(const ne_sock_addr *addr, char *buffer, size_t bufsiz);
```

```
void ne_addr_destroy(ne_sock_addr *addr);
```

## DESCRIPTION

The `ne_addr_resolve` function resolves the given *hostname*, returning an `ne_sock_addr` object representing the address (or addresses) associated with the hostname. The *flags* parameter is currently unused, and must be passed as 0.

The *hostname* passed to `ne_addr_resolve` can be a DNS hostname (e.g. "www.example.com") or an IPv4 dotted quad (e.g. "192.0.34.72"); or, on systems which support IPv6, an IPv6 hex address, which may be enclosed in brackets, e.g. "[::1]".

To determine whether the hostname was successfully resolved, the `ne_addr_result` function is used, which returns non-zero if an error occurred. If an error did occur, the `ne_addr_error` function can be used, which will copy the error string into a given *buffer* (of size *bufsiz*).

The functions `ne_addr_first` and `ne_addr_next` are used to retrieve the Internet addresses associated with an address object which has been successfully resolved. `ne_addr_first` returns the first address; `ne_addr_next` returns the next address after the most recent call to `ne_addr_next` or `ne_addr_first`, or NULL if there are no more addresses. The `ne_inet_addr` pointer returned by these functions can be passed to `ne_sock_connect` to connect a socket.

After the address object has been used, it should be destroyed using `ne_addr_destroy`.

**RETURN VALUE**

**ne\_addr\_resolve** returns a pointer to an address object, and never NULL. **ne\_addr\_error** returns the *buffer* parameter .

**EXAMPLES**

The code below prints out the set of addresses associated with the hostname www.google.com.

```
ne_sock_addr *addr;
char buf[256];

addr = ne_addr_resolve("www.google.com", 0);
if (ne_addr_result(addr)) {
    printf("Could not resolve www.google.com: %s\n",
        ne_addr_error(addr, buf, sizeof buf));
} else {
    const ne_inet_addr *ia;
    printf("www.google.com:");
    for (ia = ne_addr_first(addr); ia != NULL; ia = ne_addr_next(addr)) {
        printf(" %s", ne_iaddr_print(ia, buf, sizeof buf));
    }
    putchar('\n');
}
ne_addr_destroy(addr);
```

**SEE ALSO**

ne\_iaddr\_print

**AUTHOR**

**Joe Orton**

Author.

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