

NAME

`inet_ntop` – convert IPv4 and IPv6 addresses from binary to text form

SYNOPSIS

```
#include <arpa/inet.h>
```

```
const char *inet_ntop(int af, const void *src,
                      char *dst, socklen_t size);
```

DESCRIPTION

This function converts the network address structure *src* in the *af* address family into a character string. The resulting string is copied to the buffer pointed to by *dst*, which must be a non-null pointer. The caller specifies the number of bytes available in this buffer in the argument *size*.

`inet_ntop()` extends the `inet_ntoa(3)` function to support multiple address families, `inet_ntoa(3)` is now considered to be deprecated in favor of `inet_ntop()`. The following address families are currently supported:

AF_INET

src points to a *struct in_addr* (in network byte order) which is converted to an IPv4 network address in the dotted-decimal format, "ddd.ddd.ddd.ddd". The buffer *dst* must be at least `INET_ADDRSTRLEN` bytes long.

AF_INET6

src points to a *struct in6_addr* (in network byte order) which is converted to a representation of this address in the most appropriate IPv6 network address format for this address. The buffer *dst* must be at least `INET6_ADDRSTRLEN` bytes long.

RETURN VALUE

On success, `inet_ntop()` returns a non-null pointer to *dst*. NULL is returned if there was an error, with *errno* set to indicate the error.

ERRORS**EAFNOSUPPORT**

af was not a valid address family.

ENOSPC

The converted address string would exceed the size given by *size*.

ATTRIBUTES

For an explanation of the terms used in this section, see `attributes(7)`.

Interface	Attribute	Value
<code>inet_ntop()</code>	Thread safety	MT-Safe locale

CONFORMING TO

POSIX.1-2001, POSIX.1-2008. Note that RFC 2553 defines a prototype where the last argument *size* is of type *size_t*. Many systems follow RFC 2553. Glibc 2.0 and 2.1 have *size_t*, but 2.2 and later have *socklen_t*.

BUGS

`AF_INET6` converts IPv4-mapped IPv6 addresses into an IPv6 format.

EXAMPLE

See `inet_pton(3)`.

SEE ALSO

`getnameinfo(3)`, `inet(3)`, `inet_pton(3)`

COLOPHON

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