

[NAME](#) | [SYNOPSIS](#) | [DESCRIPTION](#) | [RETURN VALUE](#) | [ERRORS](#) |
[ATTRIBUTES](#) | [CONFORMING TO](#) | [BUGS](#) | [EXAMPLE](#) | [SEE ALSO](#) |
[COLOPHON](#)

Search online pages

INET_NTOP(3)

Linux Programmer's Manual

INET_NTOP(3)

NAME [top](#)

inet_ntop - convert IPv4 and IPv6 addresses from binary to text form

SYNOPSIS [top](#)

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

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

DESCRIPTION [top](#)

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 [top](#)

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 [top](#)

EAFNOSUPPORT

af was not a valid address family.

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

ATTRIBUTES [top](#)

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 [top](#)

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 [top](#)

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

EXAMPLE [top](#)

See [inet_pton\(3\)](#).

SEE ALSO [top](#)

[getnameinfo\(3\)](#), [inet\(3\)](#), [inet_pton\(3\)](#)

COLOPHON [top](#)

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Pages that refer to this page: [gethostbyname\(3\)](#), [getipnodebyname\(3\)](#), [getnameinfo\(3\)](#), [inet\(3\)](#), [inet_pton\(3\)](#)

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