

## NAME

`bindresvport` - bind a socket to a privileged IP port

## SYNOPSIS

```
#include <sys/types.h>
#include <netinet/in.h>
```

```
int bindresvport(int sockfd, struct sockaddr_in *sin);
```

## DESCRIPTION

`bindresvport()` is used to bind a socket descriptor to a privileged anonymous IP port, that is, a port number arbitrarily selected from the range 512 to 1023.

If the `bind(2)` performed by `bindresvport()` is successful, and `sin` is not NULL, then `sin->sin_port` returns the port number actually allocated.

`sin` can be NULL, in which case `sin->sin_family` is implicitly taken to be `AF_INET`. However, in this case, `bindresvport()` has no way to return the port number actually allocated. (This information can later be obtained using `getsockname(2)`.)

## RETURN VALUE

`bindresvport()` returns 0 on success; otherwise -1 is returned and `errno` set to indicate the cause of the error.

## ERRORS

`bindresvport()` can fail for any of the same reasons as `bind(2)`. In addition, the following errors may occur:

### EACCES

The caller did not have superuser privilege (to be precise: the `CAP_NET_BIND_SERVICE` capability is required).

### EADDRINUSE

All privileged ports are in use.

### EAFNOSUPPORT (EFPNOSUPPORT in glibc 2.7 and earlier)

`sin` is not NULL and `sin->sin_family` is not `AF_INET`.

## ATTRIBUTES

### Multithreading (see `pthread(7)`)

Before glibc 2.17, the `bindresvport()` function uses a static variable that is not protected, so it is not thread-safe.

Since glibc 2.17, the `bindresvport()` function uses a lock to protect the static variable, so it is thread-safe.

## CONFORMING TO

Not in POSIX.1-2001. Present on the BSDs, Solaris, and many other systems.

## NOTES

Unlike some `bindresvport()` implementations, the glibc implementation ignores any value that the caller supplies in `sin->sin_port`.

## SEE ALSO

`bind(2)`, `getsockname(2)`

## COLOPHON

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