

**NAME**

socketpair – create a pair of connected sockets

**SYNOPSIS**

```
#include <sys/types.h>      /* See NOTES */
#include <sys/socket.h>
```

```
int socketpair(int domain, int type, int protocol, int sv[2]);
```

**DESCRIPTION**

The **socketpair()** call creates an unnamed pair of connected sockets in the specified *domain*, of the specified *type*, and using the optionally specified *protocol*. For further details of these arguments, see **socket(2)**.

The descriptors used in referencing the new sockets are returned in *sv*[0] and *sv*[1]. The two sockets are indistinguishable.

**RETURN VALUE**

On success, zero is returned. On error, **-1** is returned, and *errno* is set appropriately.

**ERRORS****EAFNOSUPPORT**

The specified address family is not supported on this machine.

**EFAULT**

The address *sv* does not specify a valid part of the process address space.

**EMFILE**

Too many descriptors are in use by this process.

**ENFILE**

The system limit on the total number of open files has been reached.

**EOPNOTSUPP**

The specified protocol does not support creation of socket pairs.

**EPROTONOSUPPORT**

The specified protocol is not supported on this machine.

**CONFORMING TO**

4.4BSD, POSIX.1-2001. The **socketpair()** function call appeared in 4.2BSD. It is generally portable to/from non-BSD systems supporting clones of the BSD socket layer (including System V variants).

**NOTES**

On Linux, the only supported domain for this call is **AF\_UNIX** (or synonymously, **AF\_LOCAL**). (Most implementations have the same restriction.)

Since Linux 2.6.27, **socketpair()** supports the **SOCK\_NONBLOCK** and **SOCK\_CLOEXEC** flags described in **socket(2)**.

POSIX.1-2001 does not require the inclusion of *<sys/types.h>*, and this header file is not required on Linux. However, some historical (BSD) implementations required this header file, and portable applications are probably wise to include it.

**SEE ALSO**

**pipe(2)**, **read(2)**, **socket(2)**, **write(2)**, **socket(7)**, **unix(7)**

**COLOPHON**

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