

NAME

socketcall – socket system calls

LIBRARY

Standard C library (*libc*, *-lc*)

SYNOPSIS

```
#include <linux/net.h>      /* Definition of SYS_* constants */
#include <sys/syscall.h>     /* Definition of SYS_socketcall */
#include <unistd.h>
```

```
int syscall(SYS_socketcall, int call, unsigned long *args);
```

Note: glibc provides no wrapper for **socketcall()**, necessitating the use of **syscall(2)**.

DESCRIPTION

socketcall() is a common kernel entry point for the socket system calls. *call* determines which socket function to invoke. *args* points to a block containing the actual arguments, which are passed through to the appropriate call.

User programs should call the appropriate functions by their usual names. Only standard library implementors and kernel hackers need to know about **socketcall()**.

<i>call</i>	Man page
SYS_SOCKET	socket(2)
SYS_BIND	bind(2)
SYS_CONNECT	connect(2)
SYS_LISTEN	listen(2)
SYS_ACCEPT	accept(2)
SYS_GETSOCKNAME	getsockname(2)
SYS_GETPEERNAME	getpeername(2)
SYS_SOCKETPAIR	socketpair(2)
SYS_SEND	send(2)
SYS_RECV	recv(2)
SYS_SENTO	sendto(2)
SYS_RECVFROM	recvfrom(2)
SYS_SHUTDOWN	shutdown(2)
SYS_SETSOCKOPT	setsockopt(2)
SYS_GETSOCKOPT	getsockopt(2)
SYS_SENDMSG	sendmsg(2)
SYS_RECVMSG	recvmsg(2)
SYS_ACCEPT4	accept4(2)
SYS_RECVMMSG	recvmsg(2)
SYS_SENDMMSG	sendmsg(2)

STANDARDS

This call is specific to Linux, and should not be used in programs intended to be portable.

NOTES

On some architectures—for example, x86-64 and ARM—there is no **socketcall()** system call; instead **socket(2)**, **accept(2)**, **bind(2)**, and so on really are implemented as separate system calls.

On x86-32, **socketcall()** was historically the only entry point for the sockets API. However, starting in Linux 4.3, direct system calls are provided on x86-32 for the sockets API. This facilitates the creation of **seccomp(2)** filters that filter sockets system calls (for new user-space binaries that are compiled to use the new entry points) and also provides a (very) small performance improvement.

SEE ALSO

accept(2), **bind(2)**, **connect(2)**, **getpeername(2)**, **getsockname(2)**, **getsockopt(2)**, **listen(2)**, **recv(2)**, **recvfrom(2)**, **recvmsg(2)**, **send(2)**, **sendmsg(2)**, **sendto(2)**, **setsockopt(2)**, **shutdown(2)**, **socket(2)**, **socketpair(2)**