#### NAME

accept\_filter, accept\_filt\_add, accept\_filt\_del, accept\_filt\_generic\_mod\_event, accept\_filt\_get - filter
incoming connections

## SYNOPSIS

#include <sys/types.h>
#include <sys/module.h>
#include <sys/socket.h>

#define ACCEPT\_FILTER\_MOD

#include <sys/socketvar.h>

int

accept\_filt\_add(struct accept\_filter \*filt);

int
accept\_filt\_del(char \*name);

int

accept\_filt\_generic\_mod\_event(module\_t mod, int event, void \*data);

struct accept\_filter \*
accept\_filt\_get(char \*name);

## DESCRIPTION

Accept filters allow an application to request that the kernel pre-process incoming connections. An accept filter is requested via the setsockopt(2) system call, passing in an *optname* of SO\_ACCEPTFILTER.

## **IMPLEMENTATION NOTES**

A module that wants to be an accept filter must provide a *struct accept\_filter* to the system:

```
struct accept_filter {
```

char	accf_name[16];	
void	(*accf_callback)(struct socket *so, void	d *arg, int waitflag);
void *	(*accf_create)(struct socket *so, char *	arg);
void	(*accf_destroy)(struct socket *so);	
SLIST_E	NTRY(accept_filter) accf_next;	/* next on the list */

};

The module should register it with the function **accept\_filt\_add**(), passing a pointer to a *struct accept\_filter*, allocated with malloc(9).

The fields of *struct accept\_filter* are as follows:

<i>accf name</i> Name of the filter; this is how it will be accessed from userla
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*accf\_callback* The callback that the kernel will do once the connection is established. It is the same as a socket upcall and will be called when the connection is established and whenever new data arrives on the socket, unless the callback modifies the socket's flags.

*accf\_create* Called whenever a setsockopt(2) installs the filter onto a listening socket.

The **accept\_filt\_del**() function passed the same string used in *accept\_filter.accf\_name* during registration with **accept\_filt\_add**(), the kernel will then disallow and further userland use of the filter.

The **accept\_filt\_get**() function is used internally to locate which accept filter to use via the setsockopt(2) system call.

The **accept\_filt\_generic\_mod\_event**() function provides a simple way to avoid duplication of code for accept filters which do not use the argument field to load and unload themselves. This function can be used in the *moduledata\_t* struct for the DECLARE\_MODULE(9) macro.

# SEE ALSO

setsockopt(2), accf\_data(9), accf\_dns(9), accf\_http(9), malloc(9)

#### HISTORY

The accept filter mechanism was introduced in FreeBSD 4.0.

#### AUTHORS

This manual page was written by Alfred Perlstein, Sheldon Hearn and Jeroen Ruigrok van der Werven.

The accept filter concept was pioneered by David Filo at Yahoo! and refined to be a loadable module system by Alfred Perlstein.

*accf\_destroy* Called whenever the user removes the accept filter on the socket.