NAME

cap_rights_get - obtain capability rights

LIBRARY

Standard C Library (libc, -lc)

SYNOPSIS

#include <sys/capsicum.h>

int
cap_rights_get(*int fd*, *cap_rights_t *rights*);

DESCRIPTION

The **cap_rights_get** function allows to obtain current capability rights for the given descriptor. The function will fill the *rights* argument with all capability rights if they were not limited or capability rights configured during the last successful call of cap_rights_limit(2) on the given descriptor.

The *rights* argument can be inspected using cap_rights_init(3) family of functions.

The complete list of the capability rights can be found in the rights(4) manual page.

RETURN VALUES

Upon successful completion, the value 0 is returned; otherwise the value -1 is returned and the global variable *errno* is set to indicate the error.

EXAMPLES

The following example demonstrates how to limit file descriptor capability rights and how to obtain them.

```
cap_rights_t setrights, getrights;
int fd;

memset(&setrights, 0, sizeof(setrights));
memset(&getrights, 0, sizeof(getrights));

fd = open("/tmp/foo", O_RDONLY);
if (fd < 0)
        err(1, "open() failed");

cap_rights_init(&setrights, CAP_FSTAT, CAP_READ);
```

```
if (cap_rights_limit(fd, &setrights) < 0 && errno != ENOSYS)
        err(1, "cap_rights_limit() failed");

if (cap_rights_get(fd, &getrights) < 0 && errno != ENOSYS)
        err(1, "cap_rights_get() failed");

assert(memcmp(&setrights, &getrights, sizeof(setrights)) == 0);
```

ERRORS
cap_rights_get() succeeds unless:

[EBADF]   The *fd* argument is not a valid active descriptor.

[EFAULT]   The *rights* argument points at an invalid address.

SEE ALSO
cap_rights_limit(2), errno(2), open(2), assert(3), cap_rights_init(3), err(3), memcmp(3), memset(3), capsicum(4), rights(4)

HISTORY
The **cap_rights_get**() function first appeared in FreeBSD 9.2. Support for capabilities and capabilities mode was developed as part of the TrustedBSD Project.

AUTHORS
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