

NAME

CREATE_SERVICE - casper service declaration macro

LIBRARY

Casper Library (libcasper, -lcasper)

SYNOPSIS

```
#include <sys/nv.h>
```

```
#include <libcasper.h>
```

```
#include <libcasper_service.h>
```

```
typedef int service_limit_func_t(const nvlist_t *, const nvlist_t *);
```

```
typedef int service_command_func_t(const char *, const nvlist_t *, nvlist_t *,  
    nvlist_t *);
```

```
CREATE_SERVICE(name, limit_func, command_func, flags);
```

DESCRIPTION

The **CREATE_SERVICE** macro is used to create a new casper service. The *name* is a string containing the service name, which will be used in the `cap_service_open(3)`, function to identify it.

The *limit_func* is a function of type `service_limit_func_t` where the first argument of the function contains an `nvlist(9)`, old service limits and the second argument contains the new limits. If the service was not limited then the old limits will be set to `NULL`. This function must not allow the extension of service limits. The *command_func* is a function of type `service_command_func_t` where the first argument is the name of the command that should be executed. The first `nvlist(9)` contains the current limits and the second contains an `nvlist(9)` with the current request. The last argument contains a return value `nvlist(9)` which contains the response from casper.

The *flags* argument defines the limits of the service. The supported flags are:

CASPER_SERVICE_STDIO

The casper service has access to the stdio descriptors from the process it was spawned from.

CASPER_SERVICE_FD

The casper service has access to all of the descriptors, besides the stdio descriptors, from the process it was spawned from.

CASPER_SERVICE_NO_UNIQ_LIMITS

The whole casper communication is using an `nvlist(9)` with the `NV_FLAG_NO_UNIQUE` flag.

SEE ALSO

`cap_enter(2)`, `libcasper(3)`, `capsicum(4)`, `nv(9)`

HISTORY

The **libcasper** library first appeared in FreeBSD 10.3.

AUTHORS

The **libcasper** library was implemented by Pawel Jakub Dawidek <pawel@dawidek.net> under sponsorship from the FreeBSD Foundation. The **libcasper** new architecture was implemented by Mariusz Zaborski <oshogbo@FreeBSD.org>