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Linux Ubuntu 26.04 Manual Pages on command 'DES_FAILED.3'

\$ man DES_FAILED.3

des_crypt(3) Library Functions Manual des_crypt(3)

NAME

des_crypt, ecb_crypt, cbc_crypt, des_setparity, DES_FAILED - fast DES encryption

LIBRARY

Standard C library (libc, -lc)

SYNOPSIS

```
#include <rpc/des_crypt.h>
```

```
[[deprecated]] int ecb_crypt(unsigned int datalen;  
                             char *key, char data[datalen],  
                             unsigned int datalen, unsigned int mode);
```

```
[[deprecated]] int cbc_crypt(unsigned int datalen;  
                             char *key, char data[datalen],  
                             unsigned int datalen, unsigned int mode,  
                             char *ivec);
```

```
[[deprecated]] void des_setparity(char *key);
```

```
[[deprecated]] int DES_FAILED(int status);
```

DESCRIPTION

ecb_crypt() and cbc_crypt() implement the NBS DES (Data Encryption Standard). These routines are faster and more general purpose than crypt(3). They also are able to utilize DES hardware if it is available. ecb_crypt() encrypts in ECB (Electronic Code Book) mode, which encrypts blocks of data independently. cbc_crypt() encrypts in CBC (Cipher Block Chaining) mode, which chains together successive blocks. CBC mode protects against insertions, deletions, and substitutions of blocks. Also, regularities in the clear text will not appear in

Here is how to use these routines. The first argument, `key`, is the 8-byte encryption key with parity. To set the key's parity, which for DES is in the low bit of each byte, use `des_setparity()`. The second argument, `data`, contains the data to be encrypted or decrypted. The third argument, `datalen`, is the length in bytes of data, which must be a multiple of 8. The fourth argument, `mode`, is formed by ORing together some things. For the encryption direction OR in either `DES_ENCRYPT` or `DES_DECRYPT`. For software versus hardware encryption, OR in either `DES_HW` or `DES_SW`. If `DES_HW` is specified, and there is no hardware, then the encryption is performed in software and the routine returns `DESERR_NOHWDEVICE`. For `cbc_crypt()`, the argument `ivec` is the 8-byte initialization vector for the chaining. It is updated to the next initialization vector upon return.

DESERR NONE

DESERR NOHWDEVICE

DESERR_HWERROR

DESERR_BADPARAM

Given a result status `stat`, the macro `DES_FAILED(stat)` is false only for the first two statuses.

For an explanation of the terms used in this section, see `attributes(7)`.

[illegible]

None.

4.3BSD. glibc 2.1. Removed in glibc 2.28.

Because they employ the DES block cipher, which is no longer considered secure, these functions were removed. Applications should switch to a modern cryptography library, such as libgcrypt.

SEE ALSO

des(1), crypt(3), xcrypt(3)

Linux man-pages 6.17

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