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## **Red Hat Enterprise Linux Release 9.2 Manual Pages on 'CMS\_EncryptedData\_encrypt.3ossl' command**

```
$ man CMS_EncryptedData_encrypt.3ossl
```

```
CMS_ENCRYPTEDDATA_ENCRYPT(3ossl)  OpenSSL  CMS_ENCRYPTEDDATA_ENCRYPT(3ossl)
```

### NAME

CMS\_EncryptedData\_encrypt\_ex, CMS\_EncryptedData\_encrypt - Create CMS EncryptedData

### SYNOPSIS

```
#include <openssl/cms.h>
```

```
CMS_ContentInfo *CMS_EncryptedData_encrypt_ex(BIO *in,  
                                               const EVP_CIPHER *cipher,  
                                               const unsigned char *key,  
                                               size_t keylen,  
                                               unsigned int flags,  
                                               OSSL_LIB_CTX *ctx,  
                                               const char *propq);
```

```
CMS_ContentInfo *CMS_EncryptedData_encrypt(BIO *in,  
                                             const EVP_CIPHER *cipher, const unsigned char *key, size_t keylen,  
                                             unsigned int flags);
```

### DESCRIPTION

CMS\_EncryptedData\_encrypt\_ex() creates a CMS\_ContentInfo structure with

a type `NID_pkcs7_encrypted`. It is a BIO containing the data to encrypt using cipher and the encryption key `key` of size `keylen` bytes. The library context `libctx` and the property query `propq` are used when retrieving algorithms from providers. `flags` is a set of optional flags.

The `flags` field supports the options `CMS_DETACHED`, `CMS_STREAM` and `CMS_PARTIAL`. Internally `CMS_final()` is called unless `CMS_STREAM` and/or `CMS_PARTIAL` is specified.

The algorithm passed in the `cipher` parameter must support ASN1 encoding of its parameters.

The `CMS_ContentInfo` structure can be freed using `CMS_ContentInfo_free(3)`.

`CMS_EncryptedData_encrypt()` is similar to `CMS_EncryptedData_encrypt_ex()` but uses default values of `NULL` for the library context `libctx` and the property query `propq`.

## RETURN VALUES

If the allocation fails, `CMS_EncryptedData_encrypt_ex()` and `CMS_EncryptedData_encrypt()` return `NULL` and set an error code that can be obtained by `ERR_get_error(3)`. Otherwise they return a pointer to the newly allocated structure.

## SEE ALSO

`ERR_get_error(3)`, `CMS_final(3)`, `CMS_EncryptedData_decrypt(3)`

## HISTORY

The `CMS_EncryptedData_encrypt_ex()` method was added in OpenSSL 3.0.

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