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Rocky Enterprise Linux 9.2 Manual Pages on command 'CMS_EnvelopedData_create_ex.3ossl'

\$ man CMS_EnvelopedData_create_ex.3ossl

CMS_ENVELOPEDDATA_CREATE(3ossl) OpenSSL CMS_ENVELOPEDDATA_CREATE(3ossl)

NAME

CMS_EnvelopedData_create_ex, CMS_EnvelopedData_create,
CMS_AuthEnvelopedData_create, CMS_AuthEnvelopedData_create_ex - Create
CMS envelope

SYNOPSIS

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

```
CMS_ContentInfo *
```

```
CMS_EnvelopedData_create_ex(const EVP_CIPHER *cipher, OSSL_LIB_CTX *libctx,  
                             const char *propq);
```

```
CMS_ContentInfo *CMS_EnvelopedData_create(const EVP_CIPHER *cipher);
```

```
CMS_ContentInfo *
```

```
CMS_AuthEnvelopedData_create_ex(const EVP_CIPHER *cipher, OSSL_LIB_CTX *libctx,  
                                 const char *propq);
```

```
CMS_ContentInfo *CMS_AuthEnvelopedData_create(const EVP_CIPHER *cipher);
```

DESCRIPTION

`CMS_EnvelopedData_create_ex()` creates a `CMS_ContentInfo` structure with a type `NID_pkcs7_enveloped`. `cipher` is the symmetric cipher to use. The library context `libctx` and the property query `propq` are used when retrieving algorithms from providers.

`CMS_AuthEnvelopedData_create_ex()` creates a `CMS_ContentInfo` structure with a type `NID_id_smime_ct_authEnvelopedData`. `cipher` is the symmetric AEAD cipher to use. Currently only AES variants with GCM mode are supported. The library context `libctx` and the property query `propq` are used when retrieving algorithms from providers.

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

The recipients can be added later using `CMS_add1_recipient_cert(3)` or `CMS_add0_recipient_key(3)`.

The `CMS_ContentInfo` structure needs to be finalized using `CMS_final(3)` and then freed using `CMS_ContentInfo_free(3)`.

`CMS_EnvelopedData_create()` and `CMS_AuthEnvelopedData_create` are similar to `CMS_EnvelopedData_create_ex()` and `CMS_AuthEnvelopedData_create_ex()` but use default values of `NULL` for the library context `libctx` and the property query `propq`.

NOTES

Although `CMS_EnvelopedData_create()` and `CMS_AuthEnvelopedData_create()` allocate a new `CMS_ContentInfo` structure, they are not usually used in applications. The wrappers `CMS_encrypt(3)` and `CMS_decrypt(3)` are often used instead.

RETURN VALUES

If the allocation fails, `CMS_EnvelopedData_create()` and `CMS_AuthEnvelopedData_create()` 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_encrypt(3)`, `CMS_decrypt(3)`, `CMS_final(3)`

HISTORY

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

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