NAME

CMS_compress - create a CMS CompressedData structure

SYNOPSIS

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

CMS_ContentInfo *CMS_compress(BIO *in, int comp_nid, unsigned int flags);
```

DESCRIPTION

CMS_compress() creates and returns a CMS CompressedData structure. **comp_nid** is the compression algorithm to use or **NID_undef** to use the default algorithm (zlib compression). **in** is the content to be compressed. **flags** is an optional set of flags.

NOTES

The only currently supported compression algorithm is zlib using the NID NID_zlib_compression.

If zlib support is not compiled into OpenSSL then *CMS_compress()* will return an error.

If the **CMS_TEXT** flag is set MIME headers for type **text/plain** are prepended to the data.

Normally the supplied content is translated into MIME canonical format (as required by the S/MIME specifications) if **CMS_BINARY** is set no translation occurs. This option should be used if the supplied data is in binary format otherwise the translation will corrupt it. If **CMS_BINARY** is set then **CMS_TEXT** is ignored.

If the **CMS_STREAM** flag is set a partial **CMS_ContentInfo** structure is returned suitable for streaming I/O: no data is read from the BIO **in**.

The compressed data is included in the CMS_ContentInfo structure, unless **CMS_DETACHED** is set in which case it is omitted. This is rarely used in practice and is not supported by *SMIME_write_CMS()*.

NOTES

If the flag **CMS_STREAM** is set the returned **CMS_ContentInfo** structure is **not** complete and outputting its contents via a function that does not properly finalize the **CMS_ContentInfo** structure will give unpredictable results.

Several functions including *SMIME_write_CMS()*, *i2d_CMS_bio_stream()*, *PEM_write_bio_CMS_stream()* finalize the structure. Alternatively finalization can be performed by obtaining the streaming ASN1 **BIO** directly using *BIO_new_CMS()*.

Additional compression parameters such as the zlib compression level cannot currently be set.

RETURN VALUES

CMS_compress() returns either a CMS_ContentInfo structure or NULL if an error occurred. The error can be obtained from *ERR_get_error(3)*.

SEE ALSO

ERR_get_error(3), *CMS_uncompress(3)*

HISTORY

CMS_compress() was added to OpenSSL 0.9.8 The **CMS_STREAM** flag was first supported in OpenSSL 1.0.0.