



Red Hat Enterprise Linux Release 9.2 Manual Pages on 'CMS_compress.3oss1' command

\$ man CMS_compress.3oss1

CMS_COMPRESS(3oss1) OpenSSL CMS_COMPRESS(3oss1)

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.

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()`.

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)`.

ERR_get_error(3), CMS_uncompress(3)

HISTORY

The CMS_STREAM flag was added in OpenSSL 1.0.0.

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3.0.7 2023-07-13 CMS_COMPRESS(3ossl)