



## **Red Hat Enterprise Linux Release 9.2 Manual Pages on 'EVP\_chacha20.3oss!' command**

**\$ man EVP\_chacha20.3oss!**

EVP\_CHACHA20(3oss!)            OpenSSL            EVP\_CHACHA20(3oss!)

### NAME

EVP\_chacha20, EVP\_chacha20\_poly1305 - EVP ChaCha20 stream cipher

### SYNOPSIS

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

```
const EVP_CIPHER *EVP_chacha20(void);
```

```
const EVP_CIPHER *EVP_chacha20_poly1305(void);
```

### DESCRIPTION

The ChaCha20 stream cipher for EVP.

EVP\_chacha20()

The ChaCha20 stream cipher. The key length is 256 bits, the IV is 128 bits long. The first 32 bits consists of a counter in little-endian order followed by a 96 bit nonce. For example a nonce of:

```
00000000000000000000000000000002
```

With an initial counter of 42 (2a in hex) would be expressed as:

2a000000000000000000000000000002

## EVP\_chacha20\_poly1305()

Authenticated encryption with ChaCha20-Poly1305. Like `EVP_chacha20()`, the key is 256 bits and the IV is 96 bits. This supports additional authenticated data (AAD) and produces a 128-bit authentication tag. See the "AEAD Interface" in `EVP_EncryptInit(3)` section for more information.

## RETURN VALUES

These functions return an `EVP_CIPHER` structure that contains the implementation of the symmetric cipher. See `EVP_CIPHER_meth_new(3)` for details of the `EVP_CIPHER` structure.

## SEE ALSO

`evp(7)`, `EVP_EncryptInit(3)`, `EVP_CIPHER_meth_new(3)`

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