



*Full credit is given to the above companies including the OS that this PDF file was generated!*

### ***Rocky Enterprise Linux 9.2 Manual Pages on command 'life\_cycle-cipher.7oss1'***

***\$ man life\_cycle-cipher.7oss1***

LIFE\_CYCLE-CIPHER(7oss1)      OpenSSL      LIFE\_CYCLE-CIPHER(7oss1)

#### NAME

life\_cycle-cipher - The cipher algorithm life-cycle

#### DESCRIPTION

All symmetric ciphers (CIPHERs) go through a number of stages in their life-cycle:

##### start

This state represents the CIPHER before it has been allocated. It is the starting state for any life-cycle transitions.

##### newed

This state represents the CIPHER after it has been allocated.

##### initialised

These states represent the CIPHER when it is set up and capable of

processing input. There are three possible initialised states:

initialised using `EVP_CipherInit`

initialised for decryption using `EVP_DecryptInit`

initialised for encryption using `EVP_EncryptInit`

updated

These states represent the CIPHER when it is set up and capable of processing additional input or generating output. The three possible states directly correspond to those for initialised above.

The three different streams should not be mixed.

finalised

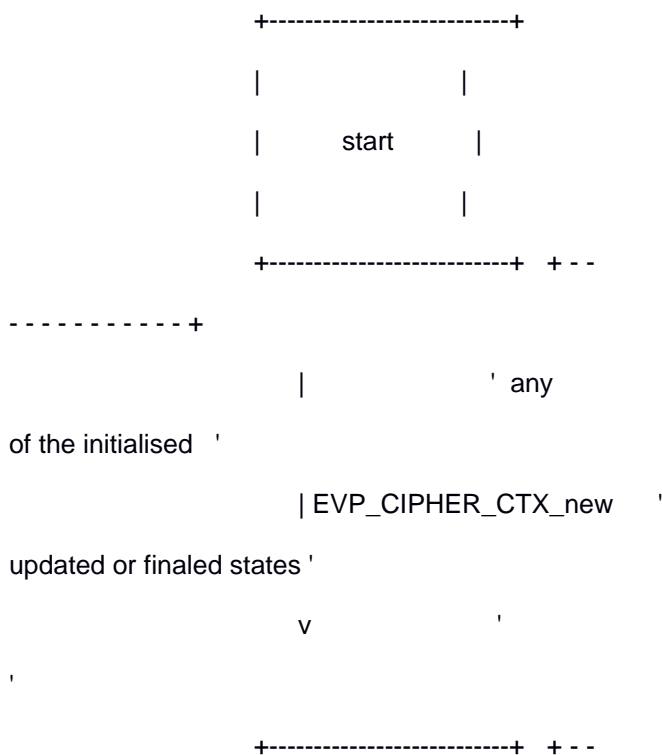
This state represents the CIPHER when it has generated output.

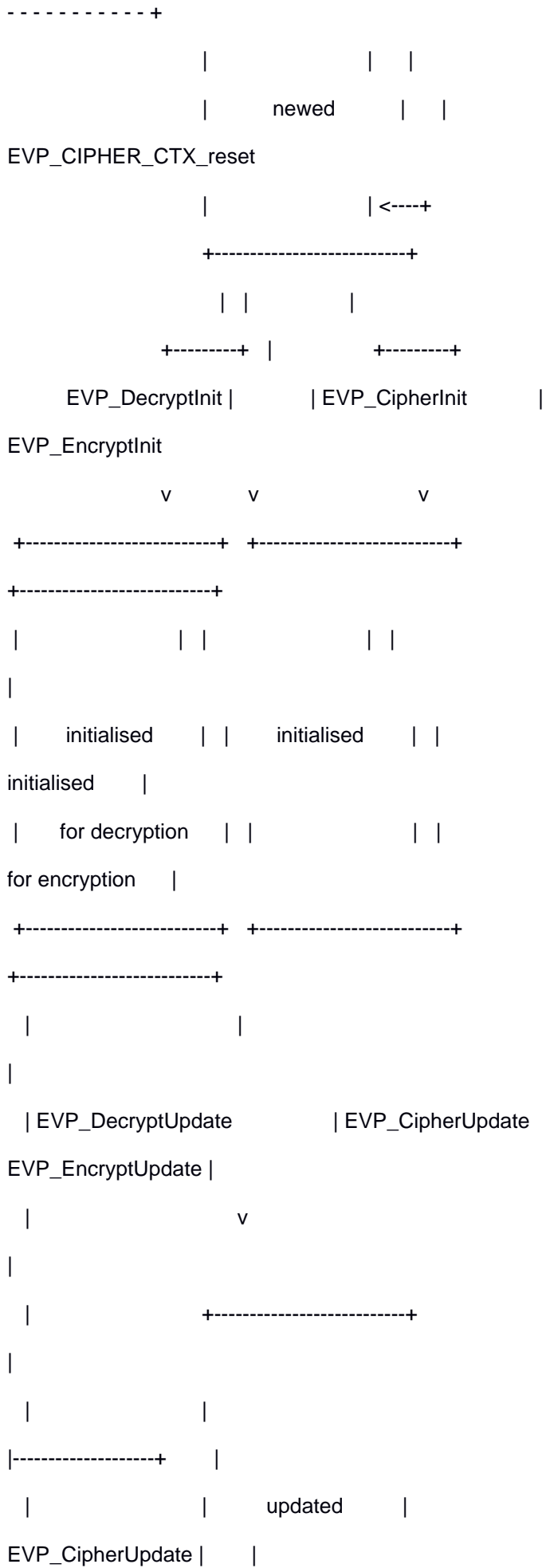
freed

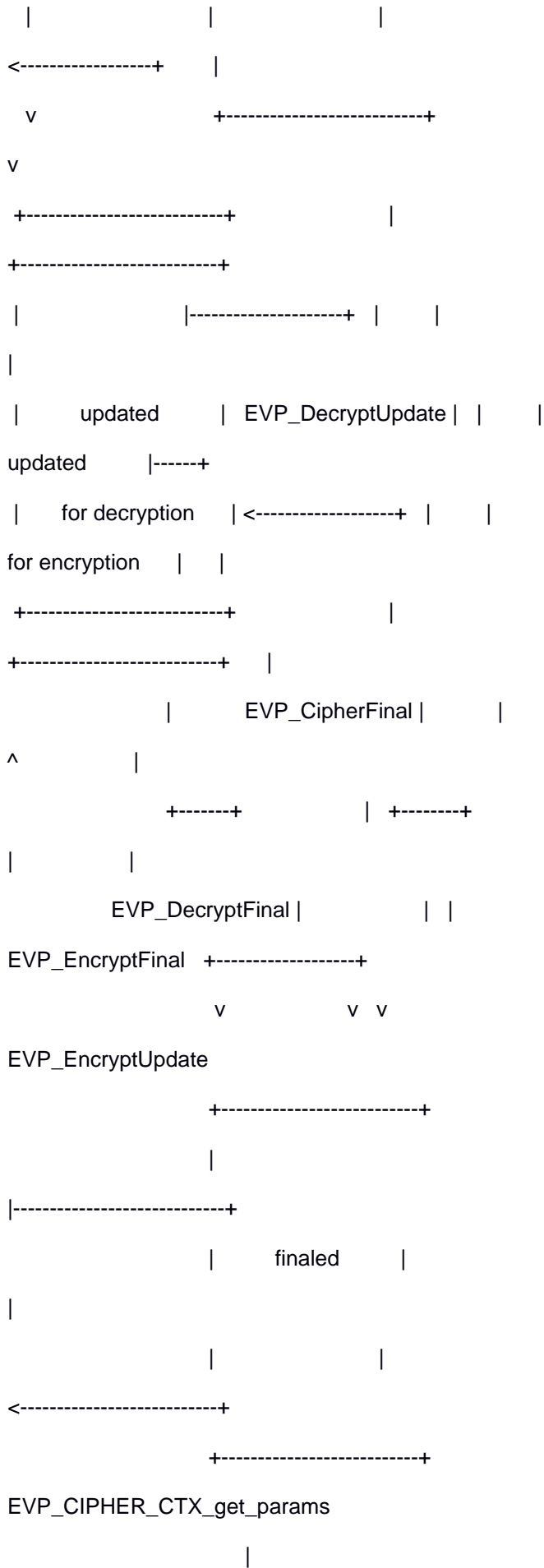
This state is entered when the CIPHER is freed. It is the terminal state for all life-cycle transitions.

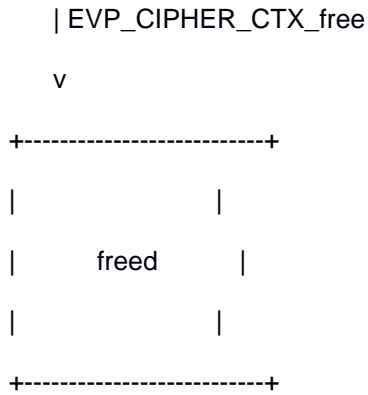
### State Transition Diagram

The usual life-cycle of a CIPHER is illustrated:









### Formal State Transitions

This section defines all of the legal state transitions. This is the canonical list.

#### Function Call

```

----- Current State
-----

      start  newed  initialised  updated
finaled  initialised  updated  initialised  updated  freed
                                           decryption
decryption  encryption  encryption
EVP_CIPHER_CTX_new      newed
EVP_CipherInit          initialised initialised initialised
initialised initialised initialised  initialised initialised
EVP_DecryptInit        initialised initialised initialised
initialised initialised initialised  initialised initialised
                        decryption decryption decryption
decryption decryption decryption decryption decryption
EVP_EncryptInit        initialised initialised initialised
initialised initialised initialised  initialised initialised
                        encryption encryption encryption
encryption encryption encryption encryption encryption
EVP_CipherUpdate          updated  updated
EVP_DecryptUpdate
updated  updated

```



described herein.

## SEE ALSO

provider-cipher(7), EVP\_EncryptInit(3)

## COPYRIGHT

Copyright 2021 The OpenSSL Project Authors. All Rights Reserved.

Licensed under the Apache License 2.0 (the "License"). You may not use this file except in compliance with the License. You can obtain a copy in the file LICENSE in the source distribution or at <https://www.openssl.org/source/license.html>.

3.0.7                    2023-07-13        LIFE\_CYCLE-CIPHER(7ossl)