



*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 'X509\_get\_X509\_PUBKEY.3ossl'***

***\$ man X509\_get\_X509\_PUBKEY.3ossl***

X509\_GET\_PUBKEY(3ossl)      OpenSSL      X509\_GET\_PUBKEY(3ossl)

#### NAME

X509\_get\_pubkey, X509\_get0\_pubkey, X509\_set\_pubkey,  
X509\_get\_X509\_PUBKEY, X509\_REQ\_get\_pubkey, X509\_REQ\_get0\_pubkey,  
X509\_REQ\_set\_pubkey, X509\_REQ\_get\_X509\_PUBKEY - get or set certificate  
or certificate request public key

#### SYNOPSIS

```
#include <openssl/x509.h>

EVP_PKEY *X509_get_pubkey(X509 *x);
EVP_PKEY *X509_get0_pubkey(const X509 *x);
int X509_set_pubkey(X509 *x, EVP_PKEY *pkey);
X509_PUBKEY *X509_get_X509_PUBKEY(const X509 *x);
EVP_PKEY *X509_REQ_get_pubkey(X509_REQ *req);
EVP_PKEY *X509_REQ_get0_pubkey(X509_REQ *req);
int X509_REQ_set_pubkey(X509_REQ *x, EVP_PKEY *pkey);
X509_PUBKEY *X509_REQ_get_X509_PUBKEY(X509_REQ *x);
```

#### DESCRIPTION

X509\_get\_pubkey() attempts to decode the public key for certificate x.

If successful it returns the public key as an `EVP_PKEY` pointer with its reference count incremented: this means the returned key must be freed up after use. `X509_get0_pubkey()` is similar except it does not increment the reference count of the returned `EVP_PKEY` so it must not be freed up after use.

`X509_get_X509_PUBKEY()` returns an internal pointer to the `X509_PUBKEY` structure which encodes the certificate of `x`. The returned value must not be freed up after use.

`X509_set_pubkey()` attempts to set the public key for certificate `x` to `pkey`. The key `pkey` should be freed up after use.

`X509_REQ_get_pubkey()`, `X509_REQ_get0_pubkey()`, `X509_REQ_set_pubkey()` and `X509_REQ_get_X509_PUBKEY()` are similar but operate on certificate request `req`.

## NOTES

The first time a public key is decoded the `EVP_PKEY` structure is cached in the certificate or certificate request itself. Subsequent calls return the cached structure with its reference count incremented to improve performance.

## RETURN VALUES

`X509_get_pubkey()`, `X509_get0_pubkey()`, `X509_get_X509_PUBKEY()`, `X509_REQ_get_pubkey()` and `X509_REQ_get_X509_PUBKEY()` return a public key or `NULL` if an error occurred.

`X509_set_pubkey()` and `X509_REQ_set_pubkey()` return 1 for success and 0 for failure.

## SEE ALSO

`d2i_X509(3)`, `ERR_get_error(3)`, `X509_CRL_get0_by_serial(3)`,  
`X509_get0_signature(3)`, `X509_get_ext_d2i(3)`,  
`X509_get_extension_flags(3)`, `X509_get_subject_name(3)`,  
`X509_get_version(3)`, `X509_NAME_add_entry_by_txt(3)`,  
`X509_NAME_ENTRY_get_object(3)`, `X509_NAME_get_index_by_NID(3)`,  
`X509_NAME_print_ex(3)`, `X509_new(3)`, `X509_sign(3)`, `X509V3_get_d2i(3)`,  
`X509_verify_cert(3)`

Copyright 2015-2021 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            X509\_GET\_PUBKEY(3ossl)