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## **Red Hat Enterprise Linux Release 9.2 Manual Pages on 'X509\_get\_pubkey.3openssl' command**

**\$ man X509\_get\_pubkey.3openssl**

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

### 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)

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