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***Rocky Enterprise Linux 9.2 Manual Pages on command 'X509\_REQ\_check\_private\_key.3ossl'***

***\$ man X509\_REQ\_check\_private\_key.3ossl***

X509\_CHECK\_PRIVATE\_KEY(3ossl)    OpenSSL    X509\_CHECK\_PRIVATE\_KEY(3ossl)

**NAME**

X509\_check\_private\_key, X509\_REQ\_check\_private\_key - check the consistency of a private key with the public key in an X509 certificate or certificate request

**SYNOPSIS**

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

```
int X509_check_private_key(X509 *x, EVP_PKEY *k);
```

```
int X509_REQ_check_private_key(X509_REQ *x, EVP_PKEY *k);
```

**DESCRIPTION**

X509\_check\_private\_key() function checks the consistency of private key k with the public key in x.

X509\_REQ\_check\_private\_key() is equivalent to X509\_check\_private\_key() except that x represents a certificate request of structure X509\_REQ.

## RETURN VALUES

X509\_check\_private\_key() and X509\_REQ\_check\_private\_key() return 1 if the keys match each other, and 0 if not.

If the key is invalid or an error occurred, the reason code can be obtained using ERR\_get\_error(3).

## BUGS

The check\_private\_key functions don't check if k itself is indeed a private key or not. It merely compares the public materials (e.g. exponent and modulus of an RSA key) and/or key parameters (e.g. EC params of an EC key) of a key pair. So if you pass a public key to these functions in k, it will return success.

## SEE ALSO

ERR\_get\_error(3)

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