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Red Hat Enterprise Linux Release 9.2 Manual Pages on 'X509_check_private_key.3ossl' command

`$ man X509_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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