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Red Hat Enterprise Linux Release 9.2 Manual Pages on 'X509_sign.3ossl' command

$ man X509_sign.3ossl

X509_SIGN(3ossl) OpenSSL X509_SIGN(3ossl)

NAME

X509_sign, X509_sign_ctx, X509_REQ_sign, X509_REQ_sign_ctx,

X509_CRL_sign, X509_CRL_sign_ctx - sign certificate, certificate

request, or CRL signature

SYNOPSIS

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

int X509_sign(X509 *x, EVP_PKEY *pkey, const EVP_MD *md);
int X509_sign_ctx(X509 *x, EVP_MD_CTX *ctx);

int X509_REQ_sign(X509_REQ *x, EVP_PKEY *pkey, const EVP_MD *md);
int X509_REQ_sign_ctx(X509_REQ *x, EVP_MD_CTX *ctx);

int X509_CRL_sign(X509_CRL *x, EVP_PKEY *pkey, const EVP_MD *md);
int X509_CRL_sign_ctx(X509_CRL *x, EVP_MD_CTX *ctx);
```

DESCRIPTION

X509_sign() signs certificate x using private key pkey and message

digest md and sets the signature in x. X509_sign_ctx() also signs

certificate x but uses the parameters contained in digest context ctx.

X509_REQ_sign(), X509_REQ_sign_ctx(), X509_CRL_sign(), and X509_CRL_sign_ctx() sign certificate requests and CRLs, respectively.

NOTES

X509_sign_ctx() is used where the default parameters for the corresponding public key and digest are not suitable. It can be used to sign keys using RSA-PSS for example.

For efficiency reasons and to work around ASN.1 encoding issues the encoding of the signed portion of a certificate, certificate request and CRL is cached internally. If the signed portion of the structure is modified the encoding is not always updated meaning a stale version is sometimes used. This is not normally a problem because modifying the signed portion will invalidate the signature and signing will always update the encoding.

RETURN VALUES

All functions return the size of the signature in bytes for success and zero for failure.

SEE ALSO

ERR_get_error(3), X509_NAME_add_entry_by_txt(3), X509_new(3), X509_verify_cert(3), X509_verify(3), X509_REQ_verify_ex(3), X509_REQ_verify(3), X509_CRL_verify(3)

HISTORY

The X509_sign(), X509_REQ_sign() and X509_CRL_sign() functions are available in all versions of OpenSSL.

The X509_sign_ctx(), X509_REQ_sign_ctx() and X509_CRL_sign_ctx() functions were added in OpenSSL 1.0.1.

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