NAME

crypto – OpenSSL cryptographic library

SYNOPSIS

See the individual manual pages for details.

DESCRIPTION

The OpenSSL **crypto** library implements a wide range of cryptographic algorithms used in various Internet standards. The services provided by this library are used by the OpenSSL implementations of SSL, TLS and S/MIME, and they have also been used to implement SSH, OpenPGP, and other cryptographic standards.

libcrypto consists of a number of sub-libraries that implement the individual algorithms.

The functionality includes symmetric encryption, public key cryptography and key agreement, certificate handling, cryptographic hash functions, cryptographic pseudo-random number generator, and various utilities.

NOTES

Some of the newer functions follow a naming convention using the numbers **0** and **1**. For example the functions:

```
int X509_CRL_add0_revoked(X509_CRL *crl, X509_REVOKED *rev);
int X509_add1_trust_object(X509 *x, const ASN1_OBJECT *obj);
```

The **0** version uses the supplied structure pointer directly in the parent and it will be freed up when the parent is freed. In the above example **crl** would be freed but **rev** would not.

The **1** function uses a copy of the supplied structure pointer (or in some cases increases its link count) in the parent and so both (**x** and **obj** above) should be freed up.

RETURN VALUES

See the individual manual pages for details.

SEE ALSO

openssl (1), **ssl** (7)

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