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

\$ man SSL_want_async.3ossl

SSL_WANT(3ossl) OpenSSL SSL_WANT(3ossl)

NAME

SSL_want, SSL_want_nothing, SSL_want_read, SSL_want_write,
SSL_want_x509_lookup, SSL_want_retry_verify, SSL_want_async,
SSL_want_async_job, SSL_want_client_hello_cb - obtain state information
TLS/SSL I/O operation

SYNOPSIS

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

int SSL_want(const SSL *ssl);
int SSL_want_nothing(const SSL *ssl);
int SSL_want_read(const SSL *ssl);
int SSL_want_write(const SSL *ssl);
int SSL_want_x509_lookup(const SSL *ssl);
int SSL_want_retry_verify(const SSL *ssl);
int SSL_want_async(const SSL *ssl);
int SSL_want_async_job(const SSL *ssl);
int SSL_want_client_hello_cb(const SSL *ssl);
```

DESCRIPTION

SSL_want() returns state information for the SSL object ssl.

The other `SSL_want_*`() calls are shortcuts for the possible states returned by `SSL_want()`.

NOTES

`SSL_want()` examines the internal state information of the SSL object. Its return values are similar to that of `SSL_get_error(3)`. Unlike `SSL_get_error(3)`, which also evaluates the error queue, the results are obtained by examining an internal state flag only. The information must therefore only be used for normal operation under nonblocking I/O. Error conditions are not handled and must be treated using `SSL_get_error(3)`.

The result returned by `SSL_want()` should always be consistent with the result of `SSL_get_error(3)`.

RETURN VALUES

The following return values can currently occur for `SSL_want()`:

SSL_NOTHING

There is no data to be written or to be read.

SSL_WRITING

There are data in the SSL buffer that must be written to the underlying BIO layer in order to complete the actual `SSL_*`() operation. A call to `SSL_get_error(3)` should return `SSL_ERROR_WANT_WRITE`.

SSL_READING

More data must be read from the underlying BIO layer in order to complete the actual `SSL_*`() operation. A call to `SSL_get_error(3)` should return `SSL_ERROR_WANT_READ`.

SSL_X509_LOOKUP

The operation did not complete because an application callback set by `SSL_CTX_set_client_cert_cb()` has asked to be called again. A call to `SSL_get_error(3)` should return `SSL_ERROR_WANT_X509_LOOKUP`.

SSL_RETRY_VERIFY

The operation did not complete because a certificate verification callback has asked to be called again via `SSL_set_retry_verify(3)`.

A call to `SSL_get_error(3)` should return

`SSL_ERROR_WANT_RETRY_VERIFY`.

SSL_ASYNC_PAUSED

An asynchronous operation partially completed and was then paused.

See `SSL_get_all_async_fds(3)`. A call to `SSL_get_error(3)` should return `SSL_ERROR_WANT_ASYNC`.

SSL_ASYNC_NO_JOBS

The asynchronous job could not be started because there were no async jobs available in the pool (see `ASYNC_init_thread(3)`). A call to `SSL_get_error(3)` should return `SSL_ERROR_WANT_ASYNC_JOB`.

SSL_CLIENT_HELLO_CB

The operation did not complete because an application callback set by `SSL_CTX_set_client_hello_cb()` has asked to be called again. A call to `SSL_get_error(3)` should return

`SSL_ERROR_WANT_CLIENT_HELLO_CB`.

`SSL_want_nothing()`, `SSL_want_read()`, `SSL_want_write()`,
`SSL_want_x509_lookup()`, `SSL_want_retry_verify()`, `SSL_want_async()`,
`SSL_want_async_job()`, and `SSL_want_client_hello_cb()` return 1 when the corresponding condition is true or 0 otherwise.

ssl(7), SSL_get_error(3)

HISTORY

The SSL_want_client_hello_cb() function and the SSL_CLIENT_HELLO_CB return value were added in OpenSSL 1.1.1.

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