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

\$ man SSL_do_handshake.3ossl

SSL_DO_HANDSHAKE(3ossl) OpenSSL SSL_DO_HANDSHAKE(3ossl)

NAME

SSL_do_handshake - perform a TLS/SSL handshake

SYNOPSIS

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

```
int SSL_do_handshake(SSL *ssl);
```

DESCRIPTION

SSL_do_handshake() will wait for a SSL/TLS handshake to take place. If the connection is in client mode, the handshake will be started. The handshake routines may have to be explicitly set in advance using either SSL_set_connect_state(3) or SSL_set_accept_state(3).

NOTES

The behaviour of SSL_do_handshake() depends on the underlying BIO.

If the underlying BIO is blocking, SSL_do_handshake() will only return once the handshake has been finished or an error occurred.

If the underlying BIO is nonblocking, SSL_do_handshake() will also

return when the underlying BIO could not satisfy the needs of `SSL_do_handshake()` to continue the handshake. In this case a call to `SSL_get_error()` with the return value of `SSL_do_handshake()` will yield `SSL_ERROR_WANT_READ` or `SSL_ERROR_WANT_WRITE`. The calling process then must repeat the call after taking appropriate action to satisfy the needs of `SSL_do_handshake()`. The action depends on the underlying BIO. When using a nonblocking socket, nothing is to be done, but `select()` can be used to check for the required condition. When using a buffering BIO, like a BIO pair, data must be written into or retrieved out of the BIO before being able to continue.

RETURN VALUES

The following return values can occur:

- 0 The TLS/SSL handshake was not successful but was shut down controlled and by the specifications of the TLS/SSL protocol. Call `SSL_get_error()` with the return value `ret` to find out the reason.
- 1 The TLS/SSL handshake was successfully completed, a TLS/SSL connection has been established.
- <0 The TLS/SSL handshake was not successful because a fatal error occurred either at the protocol level or a connection failure occurred. The shutdown was not clean. It can also occur if action is needed to continue the operation for nonblocking BIOs. Call `SSL_get_error()` with the return value `ret` to find out the reason.

SEE ALSO

`SSL_get_error(3)`, `SSL_connect(3)`, `SSL_accept(3)`, `ssl(7)`, `bio(7)`,
`SSL_set_connect_state(3)`

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