



Full credit is given to the above companies including the OS that this PDF file was generated!

Rocky Enterprise Linux 9.2 Manual Pages on command 'SSL_CTX_set_read_ahead.3ossl'

\$ man SSL_CTX_set_read_ahead.3ossl

SSL_CTX_SET_READ_AHEAD(3ossl) OpenSSL SSL_CTX_SET_READ_AHEAD(3ossl)

NAME

SSL_CTX_set_read_ahead, SSL_CTX_get_read_ahead, SSL_set_read_ahead, SSL_get_read_ahead, SSL_CTX_get_default_read_ahead - manage whether to read as many input bytes as possible

SYNOPSIS

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

void SSL_set_read_ahead(SSL *s, int yes);

int SSL_get_read_ahead(const SSL *s);

SSL_CTX_set_read_ahead(SSL_CTX *ctx, int yes);

long SSL_CTX_get_read_ahead(SSL_CTX *ctx);

long SSL_CTX_get_default_read_ahead(SSL_CTX *ctx);
```

DESCRIPTION

SSL_CTX_set_read_ahead() and SSL_set_read_ahead() set whether we should read as many input bytes as possible (for nonblocking reads) or not. For example if x bytes are currently required by OpenSSL, but y bytes are available from the underlying BIO (where y > x), then OpenSSL will read all y bytes into its buffer (providing that the buffer is large

enough) if reading ahead is on, or x bytes otherwise. Setting the parameter yes to 0 turns reading ahead is off, other values turn it on.

SSL_CTX_set_default_read_ahead() is identical to SSL_CTX_set_read_ahead().

SSL_CTX_get_read_ahead() and SSL_get_read_ahead() indicate whether reading ahead has been set or not. SSL_CTX_get_default_read_ahead() is identical to SSL_CTX_get_read_ahead().

NOTES

These functions have no impact when used with DTLS. The return values for SSL_CTX_get_read_ahead() and SSL_get_read_ahead() are undefined for DTLS. Setting read_ahead can impact the behaviour of the SSL_pending() function (see SSL_pending(3)).

Since SSL_read() can return SSL_ERROR_WANT_READ for non-application data records, and SSL_has_pending() can't tell the difference between processed and unprocessed data, it's recommended that if read ahead is turned on that SSL_MODE_AUTO_RETRY is not turned off using SSL_CTX_clear_mode(). That will prevent getting SSL_ERROR_WANT_READ when there is still a complete record available that hasn't been processed.

If the application wants to continue to use the underlying transport (e.g. TCP connection) after the SSL connection is finished using SSL_shutdown() reading ahead should be turned off. Otherwise the SSL structure might read data that it shouldn't.

RETURN VALUES

SSL_get_read_ahead() and SSL_CTX_get_read_ahead() return 0 if reading ahead is off, and non zero otherwise.

SEE ALSO

ssl(7), SSL_pending(3)

COPYRIGHT

Copyright 2015-2020 The OpenSSL Project Authors. All Rights Reserved.
Licensed under the Apache License 2.0 (the "License"). You may not use this file except in compliance with the License. You can obtain a copy in the file LICENSE in the source distribution or at

<<https://www.openssl.org/source/license.html>>.

3.0.7

2023-07-13 SSL_CTX_SET_READ_AHEAD(3ossl)