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## ***Rocky Enterprise Linux 9.2 Manual Pages on command 'SSL\_CTX\_get\_default\_read\_ahead.3ossl'***

***\$ man SSL\_CTX\_get\_default\_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)

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