



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

## **Red Hat Enterprise Linux Release 9.2 Manual Pages on 'BIO\_socket\_wait.3oss1' command**

**\$ man BIO\_socket\_wait.3oss1**

BIO\_SOCKET\_WAIT(3oss1)      OpenSSL      BIO\_SOCKET\_WAIT(3oss1)

### NAME

BIO\_socket\_wait, BIO\_wait, BIO\_do\_connect\_retry - BIO connection utility functions

### SYNOPSIS

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

#ifdef OPENSSL_NO_SOCKET
int BIO_socket_wait(int fd, int for_read, time_t max_time);
#endif

int BIO_wait(BIO *bio, time_t max_time, unsigned int nap_milliseconds);
int BIO_do_connect_retry(BIO *bio, int timeout, int nap_milliseconds);
```

### DESCRIPTION

BIO\_socket\_wait() waits on the socket fd for reading if for\_read is not 0, else for writing, at most until max\_time. It succeeds immediately if max\_time == 0 (which means no timeout given).

BIO\_wait() waits at most until max\_time on the given (typically socket-based) bio, for reading if bio is supposed to read, else for writing.

It is used by BIO\_do\_connect\_retry() and can be used together

BIO\_read(3). It succeeds immediately if max\_time == 0 (which means no timeout given). If sockets are not available it supports polling by succeeding after sleeping at most the given nap\_milliseconds in order to avoid a tight busy loop. Via nap\_milliseconds the caller determines the polling granularity.

BIO\_do\_connect\_retry() connects via the given bio. It retries BIO\_do\_connect() as far as needed to reach a definite outcome, i.e., connection succeeded, timeout has been reached, or an error occurred. For nonblocking and potentially even non-socket BIOs it polls every nap\_milliseconds and sleeps in between using BIO\_wait(). If nap\_milliseconds is < 0 then a default value of 100 ms is used. If the timeout parameter is > 0 this indicates the maximum number of seconds to wait until the connection is established or a definite error occurred. A value of 0 enables waiting indefinitely (i.e, no timeout), while a value < 0 means that BIO\_do\_connect() is tried only once. The function may, directly or indirectly, invoke ERR\_clear\_error().

## RETURN VALUES

BIO\_socket\_wait(), BIO\_wait(), and BIO\_do\_connect\_retry() return -1 on error, 0 on timeout, and 1 on success.

## SEE ALSO

BIO\_do\_connect(3), BIO\_read(3)

## HISTORY

BIO\_socket\_wait(), BIO\_wait(), and BIO\_do\_connect\_retry() were added in OpenSSL 3.0.

## COPYRIGHT

Copyright 2019-2020 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            BIO\_SOCKET\_WAIT(3ossl)