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

\$ man SSL_CTX_set_cookie_generate_cb.3ossl

SSL_CTX_SET_STATELESS_COOKIE_GESSL_CTX_SET_STATELESS_COOKIE_GENERATE_CB(3ossl)

NAME

SSL_CTX_set_stateless_cookie_generate_cb,
SSL_CTX_set_stateless_cookie_verify_cb, SSL_CTX_set_cookie_generate_cb,
SSL_CTX_set_cookie_verify_cb - Callback functions for stateless TLS1.3
cookies

SYNOPSIS

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

```
void SSL_CTX_set_stateless_cookie_generate_cb(  
    SSL_CTX *ctx,  
    int (*gen_stateless_cookie_cb) (SSL *ssl,  
        unsigned char *cookie,  
        size_t *cookie_len));
```

```
void SSL_CTX_set_stateless_cookie_verify_cb(  
    SSL_CTX *ctx,
```

```

int (*verify_stateless_cookie_cb) (SSL *ssl,
                                   const unsigned char *cookie,
                                   size_t cookie_len));

void SSL_CTX_set_cookie_generate_cb(SSL_CTX *ctx,
                                   int (*app_gen_cookie_cb) (SSL *ssl,
                                                             unsigned char
                                                             *cookie,
                                                             unsigned int
                                                             *cookie_len));

void SSL_CTX_set_cookie_verify_cb(SSL_CTX *ctx,
                                  int (*app_verify_cookie_cb) (SSL *ssl,
                                                              const unsigned
                                                              char *cookie,
                                                              unsigned int
                                                              cookie_len));

```

DESCRIPTION

SSL_CTX_set_stateless_cookie_generate_cb() sets the callback used by SSL_stateless(3) to generate the application-controlled portion of the cookie provided to clients in the HelloRetryRequest transmitted as a response to a ClientHello with a missing or invalid cookie.

gen_stateless_cookie_cb() must write at most SSL_COOKIE_LENGTH bytes into cookie, and must write the number of bytes written to cookie_len.

If a cookie cannot be generated, a zero return value can be used to abort the handshake.

SSL_CTX_set_stateless_cookie_verify_cb() sets the callback used by SSL_stateless(3) to determine whether the application-controlled portion of a ClientHello cookie is valid. The cookie data is pointed to by cookie and is of length cookie_len. A nonzero return value from verify_stateless_cookie_cb() communicates that the cookie is valid. The integrity of the entire cookie, including the application-controlled

portion, is automatically verified by HMAC before `verify_stateless_cookie_cb()` is called.

`SSL_CTX_set_cookie_generate_cb()` sets the callback used by `DTLSv1_listen(3)` to generate the cookie provided to clients in the `HelloVerifyRequest` transmitted as a response to a `ClientHello` with a missing or invalid cookie. `app_gen_cookie_cb()` must write at most `DTLS1_COOKIE_LENGTH` bytes into `cookie`, and must write the number of bytes written to `cookie_len`. If a cookie cannot be generated, a zero return value can be used to abort the handshake.

`SSL_CTX_set_cookie_verify_cb()` sets the callback used by `DTLSv1_listen(3)` to determine whether the cookie in a `ClientHello` is valid. The cookie data is pointed to by `cookie` and is of length `cookie_len`. A nonzero return value from `app_verify_cookie_cb()` communicates that the cookie is valid. The integrity of the cookie is not verified by OpenSSL. This is an application responsibility.

RETURN VALUES

Neither function returns a value.

SEE ALSO

`ssl(7)`, `SSL_stateless(3)`, `DTLSv1_listen(3)`

HISTORY

`SSL_CTX_set_stateless_cookie_generate_cb()` and `SSL_CTX_set_stateless_cookie_verify_cb()` were added in OpenSSL 1.1.1.

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