NAME

SSL_CTX_sess_set_new_cb, SSL_CTX_sess_set_remove_cb, SSL_CTX_sess_set_get_cb, SSL_CTX_sess_get_new_cb, SSL_CTX_sess_get_remove_cb, SSL_CTX_sess_get_get_cb - provide callback functions for server side external session caching

SYNOPSIS

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

void SSL_CTX_sess_set_new_cb(SSL_CTX *ctx,
int (*new_session_cb)(SSL *, SSL_SESSION *));
void SSL_CTX_sess_set_remove_cb(SSL_CTX *ctx,
void (*remove_session_cb)(SSL_CTX *ctx, SSL_SESSION *));
void SSL_CTX_sess_set_get_cb(SSL_CTX *ctx,
SSL_SESSION (*get_session_cb)(SSL *, const unsigned char *, int, int *));

int (*SSL_CTX_sess_get_new_cb(SSL_CTX *ctx))(struct ssl_st *ssl, SSL_SESSION *se
void (*SSL_CTX_sess_get_remove_cb(SSL_CTX *ctx))(struct ssl_ctx_st *ctx, SSL_SES
SSL_SESSION *(*SSL_CTX_sess_get_get_cb(SSL_CTX *ctx))(struct ssl_st *ssl, const

int (*new_session_cb)(struct ssl_st *ssl, SSL_SESSION *sess);
void (*remove_session_cb)(struct ssl_ctx_st *ctx, SSL_SESSION *sess);
SSL_SESSION *(*get_session_cb)(struct ssl_st *ssl, unsigned char *data,
int len, int *copy);
```

DESCRIPTION

SSL_CTX_sess_set_new_cb() sets the callback function, which is automatically called whenever a new session was negotiated.

SSL_CTX_sess_set_remove_cb() sets the callback function, which is automatically called whenever a session is removed by the SSL engine, because it is considered faulty or the session has become obsolete because of exceeding the timeout value.

SSL_CTX_sess_set_get_cb() sets the callback function which is called, whenever a SSL/TLS client proposed to resume a session but the session could not be found in the internal session cache (see *SSL_CTX_set_session_cache_mode(3)*). (SSL/TLS server only.)

SSL_CTX_sess_get_new_cb(), *SSL_CTX_sess_get_remove_cb()*, and *SSL_CTX_sess_get_get_cb()* allow to retrieve the function pointers of the provided callback functions. If a callback function has not been set, the NULL pointer is returned.

NOTES

In order to allow external session caching, synchronization with the internal session cache is realized via callback functions. Inside these callback functions, session can be saved to disk or put into a database using the *d2i_SSL_SESSION(3)* interface.

The *new_session_cb()* is called, whenever a new session has been negotiated and session caching is enabled (see *SSL_CTX_set_session_cache_mode(3)*). The*n*e *w_session_cb()* is passed the **ssl** connection and the ssl session **sess**. If the callback returns **0**, the session will be immediately removed again.

The *remove_session_cb()* is called, whenever the SSL engine removes a session from the internal cache. This happens when the session is removed because it is expired or when a connection was not shutdown cleanly. It also happens for all sessions in the internal session cache when *SSL_CTX_free(3)* is called. The *remove_session_cb()* is passed the **ctx** and the ssl session **sess**. It does not provide any feedback.

The *get_session_cb()* is only called on SSL/TLS servers with the session id proposed by the client. The *get_session_cb()* is always called, also when session caching was disabled. The *get_session_cb()* is passed the **ssl** connection, the session id of length **length** at the memory location **data**. With the parameter **copy** the callback can require the SSL engine to increment the reference count of the SSL_SESSION object, Normally the reference count is not incremented and therefore the session must not be explicitly freed with *SSL_SESSION_free(3)* .

SEE ALSO

ssl(3), *d2i_SSL_SESSION(3)*, *SSL_CTX_set_session_cache_mode(3)*, *SSL_CTX_flush_sessions(3)*, *SSL_SESSION_free(3)*, *SSL_CTX_free(3)*

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