

**NAME**

`SSL_CTX_set_client_CA_list`, `SSL_set_client_CA_list`, `SSL_CTX_add_client_CA`, `SSL_add_client_CA` - set list of CAs sent to the client when requesting a client certificate

**SYNOPSIS**

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

```
void SSL_CTX_set_client_CA_list(SSL_CTX *ctx, STACK_OF(X509_NAME) *list);
void SSL_set_client_CA_list(SSL *s, STACK_OF(X509_NAME) *list);
int SSL_CTX_add_client_CA(SSL_CTX *ctx, X509 *cacert);
int SSL_add_client_CA(SSL *ssl, X509 *cacert);
```

**DESCRIPTION**

`SSL_CTX_set_client_CA_list()` sets the **list** of CAs sent to the client when requesting a client certificate for **ctx**.

`SSL_set_client_CA_list()` sets the **list** of CAs sent to the client when requesting a client certificate for the chosen **ssl**, overriding the setting valid for **ssl**'s `SSL_CTX` object.

`SSL_CTX_add_client_CA()` adds the CA name extracted from **cacert** to the list of CAs sent to the client when requesting a client certificate for **ctx**.

`SSL_add_client_CA()` adds the CA name extracted from **cacert** to the list of CAs sent to the client when requesting a client certificate for the chosen **ssl**, overriding the setting valid for **ssl**'s `SSL_CTX` object.

**NOTES**

When a TLS/SSL server requests a client certificate (see [SSL\\_CTX\\_set\\_verify\(3\)](#)), it sends a list of CAs, for which it will accept certificates, to the client.

This list must explicitly be set using `SSL_CTX_set_client_CA_list()` for **ctx** and `SSL_set_client_CA_list()` for the specific **ssl**. The list specified overrides the previous setting. The CAs listed do not become trusted (**list** only contains the names, not the complete certificates); use [SSL\\_CTX\\_load\\_verify\\_locations\(3\)](#) to additionally load them for verification.

If the list of acceptable CAs is compiled in a file, the [SSL\\_load\\_client\\_CA\\_file\(3\)](#) function can be used to help importing the necessary data.

`SSL_CTX_add_client_CA()` and `SSL_add_client_CA()` can be used to add additional items the list of client CAs. If no list was specified before using `SSL_CTX_set_client_CA_list()` or `SSL_set_client_CA_list()`, a new client CA list for **ctx** or **ssl** (as appropriate) is opened.

These functions are only useful for TLS/SSL servers.

**RETURN VALUES**

`SSL_CTX_set_client_CA_list()` and `SSL_set_client_CA_list()` do not return diagnostic information.

`SSL_CTX_add_client_CA()` and `SSL_add_client_CA()` have the following return values:

- 0 A failure while manipulating the `STACK_OF(X509_NAME)` object occurred or the `X509_NAME` could not be extracted from **cacert**. Check the error stack to find out the reason.
- 1 The operation succeeded.

**EXAMPLES**

Scan all certificates in **CAfile** and list them as acceptable CAs:

```
SSL_CTX_set_client_CA_list(ctx, SSL_load_client_CA_file(CAfile));
```

**SEE ALSO**

[ssl\(3\)](#), [SSL\\_get\\_client\\_CA\\_list\(3\)](#), [SSL\\_load\\_client\\_CA\\_file\(3\)](#), [SSL\\_CTX\\_load\\_verify\\_locations\(3\)](#)

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