

**NAME**

SSL\_CTX\_get0\_param, SSL\_get0\_param, SSL\_CTX\_set1\_param, SSL\_set1\_param, SSL\_CTX\_set\_purpose, SSL\_CTX\_set\_trust, SSL\_set\_purpose, SSL\_set\_trust - get and set verification parameters

**SYNOPSIS**

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

```
X509_VERIFY_PARAM *SSL_CTX_get0_param(SSL_CTX *ctx);
X509_VERIFY_PARAM *SSL_get0_param(SSL *ssl);
int SSL_CTX_set1_param(SSL_CTX *ctx, X509_VERIFY_PARAM *vpm);
int SSL_set1_param(SSL *ssl, X509_VERIFY_PARAM *vpm);

int SSL_CTX_set_purpose(SSL_CTX *ctx, int purpose);
int SSL_set_purpose(SSL *ssl, int purpose);

int SSL_CTX_set_trust(SSL_CTX *ctx, int trust);
int SSL_set_trust(SSL *ssl, int trust);
```

**DESCRIPTION**

**SSL\_CTX\_get0\_param()** and **SSL\_get0\_param()** retrieve an internal pointer to the verification parameters for **ctx** or **ssl** respectively. The returned pointer must not be freed by the calling application.

**SSL\_CTX\_set1\_param()** and **SSL\_set1\_param()** set the verification parameters to **vpm** for **ctx** or **ssl**.

The functions **SSL\_CTX\_set\_purpose()** and **SSL\_set\_purpose()** are shorthands which set the purpose parameter on the verification parameters object. These functions are equivalent to calling **X509\_VERIFY\_PARAM\_set\_purpose()** directly.

The functions **SSL\_CTX\_set\_trust()** and **SSL\_set\_trust()** are similarly shorthands which set the trust parameter on the verification parameters object. These functions are equivalent to calling **X509\_VERIFY\_PARAM\_set\_trust()** directly.

**NOTES**

Typically parameters are retrieved from an **SSL\_CTX** or **SSL** structure using **SSL\_CTX\_get0\_param()** or **SSL\_get0\_param()** and an application modifies them to suit its needs: for example to add a hostname check.

**RETURN VALUES**

**SSL\_CTX\_get0\_param()** and **SSL\_get0\_param()** return a pointer to an **X509\_VERIFY\_PARAM**

structure.

**SSL\_CTX\_set1\_param()**, **SSL\_set1\_param()**, **SSL\_CTX\_set\_purpose()**, **SSL\_set\_purpose()**, **SSL\_CTX\_set\_trust()** and **SSL\_set\_trust()** return 1 for success and 0 for failure.

## EXAMPLES

Check hostname matches "www.foo.com" in peer certificate:

```
X509_VERIFY_PARAM *vpm = SSL_get0_param(ssl);
X509_VERIFY_PARAM_set1_host(vpm, "www.foo.com", 0);
```

## SEE ALSO

**ssl(7)**, **X509\_VERIFY\_PARAM\_set\_flags(3)**

## HISTORY

These functions were added in OpenSSL 1.0.2.

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