

NAME

X509_check_purpose - Check the purpose of a certificate

SYNOPSIS

```
#include <openssl/x509v3.h>
```

```
int X509_check_purpose(X509 *x, int id, int ca);
```

DESCRIPTION

This function checks if certificate *x* was created with the purpose represented by *id*. If *ca* is nonzero, then certificate *x* is checked to determine if it's a possible CA with various levels of certainty possibly returned. The certificate *x* must be a complete certificate otherwise the function returns an error.

Below are the potential ID's that can be checked:

```
# define X509_PURPOSE_SSL_CLIENT      1
# define X509_PURPOSE_SSL_SERVER     2
# define X509_PURPOSE_NS_SSL_SERVER  3
# define X509_PURPOSE_SMIME_SIGN     4
# define X509_PURPOSE_SMIME_ENCRYPT   5
# define X509_PURPOSE_CRL_SIGN       6
# define X509_PURPOSE_ANY             7
# define X509_PURPOSE_OCSP_HELPER     8
# define X509_PURPOSE_TIMESTAMP_SIGN  9
```

The checks performed take into account the X.509 extensions `keyUsage`, `extendedKeyUsage`, and `basicConstraints`.

RETURN VALUES

For non-CA checks

-1 an error condition has occurred

1 if the certificate was created to perform the purpose represented by *id*

0 if the certificate was not created to perform the purpose represented by *id*

For CA checks the below integers could be returned with the following meanings:

-1 an error condition has occurred

0 not a CA or does not have the purpose represented by *id*

1 is a CA.

2 Only possible in old versions of openssl when basicConstraints are absent. New versions will not return this value. May be a CA

3 basicConstraints absent but self signed V1.

4 basicConstraints absent but keyUsage present and keyCertSign asserted.

5 legacy Netscape specific CA Flags present

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