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## **Red Hat Enterprise Linux Release 9.2 Manual Pages on 'X509\_check\_purpose.3ossl' command**

**\$ man X509\_check\_purpose.3ossl**

X509\_CHECK\_PURPOSE(3ossl)      OpenSSL      X509\_CHECK\_PURPOSE(3ossl)

### 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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