

**NAME**

X509\_CRL\_get0\_by\_serial, X509\_CRL\_get0\_by\_cert, X509\_CRL\_get\_REVOKED, X509\_REVOKED\_get0\_serialNumber, X509\_REVOKED\_get0\_revocationDate, X509\_REVOKED\_set\_serialNumber, X509\_REVOKED\_set\_revocationDate, X509\_CRL\_add0\_revoked, X509\_CRL\_sort - CRL revoked entry utility functions

**SYNOPSIS**

```
#include <openssl/x509.h>
```

```
int X509_CRL_get0_by_serial(X509_CRL *crl,
                           X509_REVOKED **ret, const ASN1_INTEGER *serial);
int X509_CRL_get0_by_cert(X509_CRL *crl, X509_REVOKED **ret, X509 *x);
```

```
STACK_OF(X509_REVOKED) *X509_CRL_get_REVOKED(X509_CRL *crl);
```

```
const ASN1_INTEGER *X509_REVOKED_get0_serialNumber(const X509_REVOKED *r);
const ASN1_TIME *X509_REVOKED_get0_revocationDate(const X509_REVOKED *r);
```

```
int X509_REVOKED_set_serialNumber(X509_REVOKED *r, ASN1_INTEGER *serial);
int X509_REVOKED_set_revocationDate(X509_REVOKED *r, ASN1_TIME *tm);
```

```
int X509_CRL_add0_revoked(X509_CRL *crl, X509_REVOKED *rev);
```

```
int X509_CRL_sort(X509_CRL *crl);
```

**DESCRIPTION**

**X509\_CRL\_get0\_by\_serial()** attempts to find a revoked entry in *crl* for serial number *serial*. If it is successful, it sets *\*ret* to the internal pointer of the matching entry. As a result, *\*ret* **MUST NOT** be freed after the call.

**X509\_CRL\_get0\_by\_cert()** is similar to **X509\_get0\_by\_serial()** except it looks for a revoked entry using the serial number of certificate *x*.

**X509\_CRL\_get\_REVOKED()** returns an internal pointer to a STACK of all revoked entries for *crl*.

**X509\_REVOKED\_get0\_serialNumber()** returns an internal pointer to the serial number of *r*.

**X509\_REVOKED\_get0\_revocationDate()** returns an internal pointer to the revocation date of *r*.

**X509\_REVOKED\_set\_serialNumber()** sets the serial number of *r* to *serial*. The supplied *serial* pointer

is not used internally so it should be freed after use.

**X509\_REVOKED\_set\_revocationDate()** sets the revocation date of *r* to *tm*. The supplied *tm* pointer is not used internally so it should be freed after use.

**X509\_CRL\_add0\_revoked()** appends revoked entry *rev* to CRL *crl*. The pointer *rev* is used internally so it **MUST NOT** be freed after the call: it is freed when the parent CRL is freed.

**X509\_CRL\_sort()** sorts the revoked entries of *crl* into ascending serial number order.

## NOTES

Applications can determine the number of revoked entries returned by **X509\_CRL\_get\_REVOKED()** using **sk\_X509\_REVOKED\_num()** and examine each one in turn using **sk\_X509\_REVOKED\_value()**.

## RETURN VALUES

**X509\_CRL\_get0\_by\_serial()** and **X509\_CRL\_get0\_by\_cert()** return 0 for failure, 1 on success except if the revoked entry has the reason "removeFromCRL" (8), in which case 2 is returned.

**X509\_CRL\_get\_REVOKED()** returns a STACK of revoked entries.

**X509\_REVOKED\_get0\_serialNumber()** returns an **ASN1\_INTEGER** structure.

**X509\_REVOKED\_get0\_revocationDate()** returns an **ASN1\_TIME** structure.

**X509\_REVOKED\_set\_serialNumber()**, **X509\_REVOKED\_set\_revocationDate()**, **X509\_CRL\_add0\_revoked()** and **X509\_CRL\_sort()** return 1 for success and 0 for failure.

## SEE ALSO

**d2i\_X509(3)**, **ERR\_get\_error(3)**, **X509\_get0\_signature(3)**, **X509\_get\_ext\_d2i(3)**,  
**X509\_get\_extension\_flags(3)**, **X509\_get\_pubkey(3)**, **X509\_get\_subject\_name(3)**,  
**X509\_get\_version(3)**, **X509\_NAME\_add\_entry\_by\_txt(3)**, **X509\_NAME\_ENTRY\_get\_object(3)**,  
**X509\_NAME\_get\_index\_by\_NID(3)**, **X509\_NAME\_print\_ex(3)**, **X509\_new(3)**, **X509\_sign(3)**,  
**X509V3\_get\_d2i(3)**, **X509\_verify\_cert(3)**

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