

**NAME**

OCSP\_cert\_to\_id, OCSP\_cert\_id\_new, OCSP\_CERTID\_free, OCSP\_id\_issuer\_cmp, OCSP\_id\_cmp, OCSP\_id\_get0\_info - OCSP certificate ID utility functions

**SYNOPSIS**

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

```
OCSP_CERTID *OCSP_cert_to_id(const EVP_MD *dgst,
                             X509 *subject, X509 *issuer);
```

```
OCSP_CERTID *OCSP_cert_id_new(const EVP_MD *dgst,
                              X509_NAME *issuerName,
                              ASN1_BIT_STRING *issuerKey,
                              ASN1_INTEGER *serialNumber);
```

```
void OCSP_CERTID_free(OCSP_CERTID *id);
```

```
int OCSP_id_issuer_cmp(const OCSP_CERTID *a, const OCSP_CERTID *b);
```

```
int OCSP_id_cmp(const OCSP_CERTID *a, const OCSP_CERTID *b);
```

```
int OCSP_id_get0_info(ASN1_OCTET_STRING **piNameHash, ASN1_OBJECT **pmd,
                    ASN1_OCTET_STRING **pikeyHash,
                    ASN1_INTEGER **pserial, OCSP_CERTID *cid);
```

**DESCRIPTION**

**OCSP\_cert\_to\_id()** creates and returns a new **OCSP\_CERTID** structure using message digest **dgst** for certificate **subject** with issuer **issuer**. If **dgst** is **NULL** then SHA1 is used.

**OCSP\_cert\_id\_new()** creates and returns a new **OCSP\_CERTID** using **dgst** and issuer name **issuerName**, issuer key hash **issuerKey** and serial number **serialNumber**.

**OCSP\_CERTID\_free()** frees up **id**.

**OCSP\_id\_cmp()** compares **OCSP\_CERTID a** and **b**.

**OCSP\_id\_issuer\_cmp()** compares only the issuer name of **OCSP\_CERTID a** and **b**.

**OCSP\_id\_get0\_info()** returns the issuer name hash, hash OID, issuer key hash and serial number contained in **cid**. If any of the values are not required the corresponding parameter can be set to **NULL**.

**RETURN VALUES**

**OCSP\_cert\_to\_id()** and **OCSP\_cert\_id\_new()** return either a pointer to a valid **OCSP\_CERTID** structure or **NULL** if an error occurred.

**OCSP\_id\_cmp()** and **OCSP\_id\_issuer\_cmp()** returns zero for a match and nonzero otherwise.

**OCSP\_CERTID\_free()** does not return a value.

**OCSP\_id\_get0\_info()** returns 1 for success and 0 for failure.

**NOTES**

OCSP clients will typically only use **OCSP\_cert\_to\_id()** or **OCSP\_cert\_id\_new()**: the other functions are used by responder applications.

The values returned by **OCSP\_id\_get0\_info()** are internal pointers and **MUST NOT** be freed up by an application: they will be freed when the corresponding **OCSP\_CERTID** structure is freed.

**SEE ALSO**

**crypto(7)**, **OCSP\_request\_add1\_nonce(3)**, **OCSP\_REQUEST\_new(3)**, **OCSP\_resp\_find\_status(3)**, **OCSP\_response\_status(3)**, **OCSP\_sendreq\_new(3)**

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