

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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