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Red Hat Enterprise Linux Release 9.2 Manual Pages on 'OCSP_request_add1_nonce.3ossl' command

`$ man OCSP_request_add1_nonce.3ossl`

`OCSP_REQUEST_ADD1_NONCE(3ossl)` `OpenSSL` `OCSP_REQUEST_ADD1_NONCE(3ossl)`

NAME

`OCSP_request_add1_nonce`, `OCSP_basic_add1_nonce`, `OCSP_check_nonce`,
`OCSP_copy_nonce` - OCSP nonce functions

SYNOPSIS

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

int OCSP_request_add1_nonce(OCSP_REQUEST *req, unsigned char *val, int len);
int OCSP_basic_add1_nonce(OCSP_BASICRESP *resp, unsigned char *val, int len);
int OCSP_copy_nonce(OCSP_BASICRESP *resp, OCSP_REQUEST *req);
int OCSP_check_nonce(OCSP_REQUEST *req, OCSP_BASICRESP *resp);
```

DESCRIPTION

`OCSP_request_add1_nonce()` adds a nonce of value `val` and length `len` to OCSP request `req`. If `val` is `NULL` a random nonce is used. If `len` is zero or negative a default length will be used (currently 16 bytes).

`OCSP_basic_add1_nonce()` is identical to `OCSP_request_add1_nonce()` except it adds a nonce to OCSP basic response `resp`.

`OCSP_check_nonce()` compares the nonce value in `req` and `resp`.

`OCSP_copy_nonce()` copies any nonce value present in `req` to `resp`.

RETURN VALUES

`OCSP_request_add1_nonce()` and `OCSP_basic_add1_nonce()` return 1 for success and 0 for failure.

`OCSP_copy_nonce()` returns 1 if a nonce was successfully copied, 2 if no nonce was present in `req` and 0 if an error occurred.

OCSP_check_nonce() returns the result of the nonce comparison between req and resp. The return value indicates the result of the comparison.

If nonces are present and equal 1 is returned. If the nonces are absent

2 is returned. If a nonce is present in the response only 3 is

returned. If nonces are present and unequal 0 is returned. If the nonce

is present in the request only then -1 is returned.

NOTES

For most purposes the nonce value in a request is set to a random value

so the val parameter in OCSP_request_add1_nonce() is usually NULL.

An OCSP nonce is typically added to an OCSP request to thwart replay attacks by checking the same nonce value appears in the response.

Some responders may include a nonce in all responses even if one is not supplied.

Some responders cache OCSP responses and do not sign each response for performance reasons. As a result they do not support nonces.

The return values of OCSP_check_nonce() can be checked to cover each

case. A positive return value effectively indicates success: nonces

are both present and match, both absent or present in the response

only. A nonzero return additionally covers the case where the nonce is

present in the request only: this will happen if the responder doesn't

support nonces. A zero return value indicates present and mismatched

nonces: this should be treated as an error condition.

SEE ALSO

crypto(7), OCSP_cert_to_id(3), OCSP_REQUEST_new(3),

OCSP_resp_find_status(3), OCSP_response_status(3), OCSP_sendreq_new(3)

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