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### ***Rocky Enterprise Linux 9.2 Manual Pages on command 'OCSP\_basic\_add1\_nonce.3ossl'***

***\$ man OCSP\_basic\_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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