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

$ man OCSP_copy_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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