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## ***Red Hat Enterprise Linux Release 9.2 Manual Pages on 'RSA\_bits.3ossl' command***

***\$ man RSA\_bits.3ossl***

RSA\_SIZE(3ossl)            OpenSSL            RSA\_SIZE(3ossl)

### NAME

RSA\_size, RSA\_bits, RSA\_security\_bits - get RSA modulus size or security bits

### SYNOPSIS

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

```
int RSA_bits(const RSA *rsa);
```

The following functions have been deprecated since OpenSSL 3.0, and can be hidden entirely by defining OPENSSL\_API\_COMPAT with a suitable version value, see openssl\_user\_macros(7):

```
int RSA_size(const RSA *rsa);
```

```
int RSA_security_bits(const RSA *rsa);
```

### DESCRIPTION

RSA\_bits() returns the number of significant bits.

rsa and rsa->n must not be NULL.

The remaining functions described on this page are deprecated.

Applications should instead use `EVP_PKEY_get_size(3)`,  
`EVP_PKEY_get_bits(3)` and `EVP_PKEY_get_security_bits(3)`.

`RSA_size()` returns the RSA modulus size in bytes. It can be used to determine how much memory must be allocated for an RSA encrypted value.

`RSA_security_bits()` returns the number of security bits of the given `rsa` key. See `BN_security_bits(3)`.

## RETURN VALUES

`RSA_bits()` returns the number of bits in the key.

`RSA_size()` returns the size of modulus in bytes.

`RSA_security_bits()` returns the number of security bits.

## SEE ALSO

`BN_num_bits(3)`

## HISTORY

The `RSA_size()` and `RSA_security_bits()` functions were deprecated in OpenSSL 3.0.

The `RSA_bits()` function was added in OpenSSL 1.1.0.

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