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## **Red Hat Enterprise Linux Release 9.2 Manual Pages on 'BN\_get0\_nist\_prime\_521.3ossl' command**

**\$ man BN\_get0\_nist\_prime\_521.3ossl**

DH\_GET\_1024\_160(3ossl)      OpenSSL      DH\_GET\_1024\_160(3ossl)

### NAME

DH\_get\_1024\_160, DH\_get\_2048\_224, DH\_get\_2048\_256,  
BN\_get0\_nist\_prime\_192, BN\_get0\_nist\_prime\_224, BN\_get0\_nist\_prime\_256,  
BN\_get0\_nist\_prime\_384, BN\_get0\_nist\_prime\_521,  
BN\_get\_rfc2409\_prime\_768, BN\_get\_rfc2409\_prime\_1024,  
BN\_get\_rfc3526\_prime\_1536, BN\_get\_rfc3526\_prime\_2048,  
BN\_get\_rfc3526\_prime\_3072, BN\_get\_rfc3526\_prime\_4096,  
BN\_get\_rfc3526\_prime\_6144, BN\_get\_rfc3526\_prime\_8192 - Create  
standardized public primes or DH pairs

### SYNOPSIS

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

```
const BIGNUM *BN_get0_nist_prime_192(void);
```

```
const BIGNUM *BN_get0_nist_prime_224(void);
```

```
const BIGNUM *BN_get0_nist_prime_256(void);
```

```
const BIGNUM *BN_get0_nist_prime_384(void);
```

```
const BIGNUM *BN_get0_nist_prime_521(void);
```

```
BIGNUM *BN_get_rfc2409_prime_768(BIGNUM *bn);
```

```
BIGNUM *BN_get_rfc2409_prime_1024(BIGNUM *bn);
```

```
BIGNUM *BN_get_rfc3526_prime_1536(BIGNUM *bn);
BIGNUM *BN_get_rfc3526_prime_2048(BIGNUM *bn);
BIGNUM *BN_get_rfc3526_prime_3072(BIGNUM *bn);
BIGNUM *BN_get_rfc3526_prime_4096(BIGNUM *bn);
BIGNUM *BN_get_rfc3526_prime_6144(BIGNUM *bn);
BIGNUM *BN_get_rfc3526_prime_8192(BIGNUM *bn);
```

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)`:

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

```
DH *DH_get_1024_160(void);
DH *DH_get_2048_224(void);
DH *DH_get_2048_256(void);
```

## DESCRIPTION

`DH_get_1024_160()`, `DH_get_2048_224()`, and `DH_get_2048_256()` each return a DH object for the IETF RFC 5114 value. These functions are deprecated. Applications should instead use `EVP_PKEY_CTX_set_dh_rfc5114()` and `EVP_PKEY_CTX_set_dhx_rfc5114()` as described in `EVP_PKEY_CTX_ctrl(3)` or by setting the `OSSL_PKEY_PARAM_GROUP_NAME` as specified in "DH parameters" in `EVP_PKEY-DH(7)` to one of "dh\_1024\_160", "dh\_2048\_224" or "dh\_2048\_256".

`BN_get0_nist_prime_192()`, `BN_get0_nist_prime_224()`, `BN_get0_nist_prime_256()`, `BN_get0_nist_prime_384()`, and `BN_get0_nist_prime_521()` functions return a BIGNUM for the specific NIST prime curve (e.g., P-256).

`BN_get_rfc2409_prime_768()`, `BN_get_rfc2409_prime_1024()`,

BN\_get\_rfc3526\_prime\_1536(), BN\_get\_rfc3526\_prime\_2048(),  
BN\_get\_rfc3526\_prime\_3072(), BN\_get\_rfc3526\_prime\_4096(),  
BN\_get\_rfc3526\_prime\_6144(), and BN\_get\_rfc3526\_prime\_8192() functions  
return a BIGNUM for the specified size from IETF RFC 2409. If bn is  
not NULL, the BIGNUM will be set into that location as well.

## RETURN VALUES

Defined above.

## HISTORY

The functions DH\_get\_1024\_160(), DH\_get\_2048\_224() and  
DH\_get\_2048\_256() were deprecated in OpenSSL 3.0.

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