

**NAME**

gnutls\_x509\_privkey\_export\_pkcs8 - API function

**SYNOPSIS**

```
#include <gnutls/x509.h>
```

```
int gnutls_x509_privkey_export_pkcs8(gnutls_x509_privkey_t key, gnutls_x509_cert_fmt_t format,  
const char * password, unsigned int flags, void * output_data, size_t * output_data_size);
```

**ARGUMENTS**

gnutls\_x509\_privkey\_t key

Holds the key

gnutls\_x509\_cert\_fmt\_t format

the format of output params. One of PEM or DER.

const char \* password

the password that will be used to encrypt the key.

unsigned int flags

an ORed sequence of gnutls\_pkcs\_encrypt\_flags\_t

void \* output\_data

will contain a private key PEM or DER encoded

size\_t \* output\_data\_size

holds the size of output\_data (and will be replaced by the actual size of parameters)

**DESCRIPTION**

This function will export the private key to a PKCS8 structure. Both RSA and DSA keys can be exported. For DSA keys we use PKCS **11** definitions. If the flags do not specify the encryption cipher, then the default 3DES (PBES2) will be used.

The *password* can be either ASCII or UTF-8 in the default PBES2 encryption schemas, or ASCII for the PKCS12 schemas.

If the buffer provided is not long enough to hold the output, then \*output\_data\_size is updated and GNUTLS\_E\_SHORT\_MEMORY\_BUFFER will be returned.

If the structure is PEM encoded, it will have a header of "BEGIN ENCRYPTED PRIVATE KEY" or

"BEGIN PRIVATE KEY" if encryption is not used.

## RETURNS

In case of failure a negative error code will be returned, and 0 on success.

## REPORTING BUGS

Report bugs to <bugs@gnutls.org>.

Home page: <https://www.gnutls.org>

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## SEE ALSO

The full documentation for **gnutls** is maintained as a Texinfo manual. If the `/usr/local/share/doc/gnutls/` directory does not contain the HTML form visit

<https://www.gnutls.org/manual/>