NAME

b2i_PVK_bio, b2i_PVK_bio_ex, i2b_PVK_bio, i2b_PVK_bio_ex − Decode and encode functions for reading and writing MSBLOB format private keys

SYNOPSIS

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

EVP_PKEY *b2i_PVK_bio(BIO *in, pem_password_cb *cb, void *u);
EVP_PKEY *b2i_PVK_bio_ex(BIO *in, pem_password_cb *cb, void *u,
                         OSSL_LIB_CTX *libctx, const char *propq);
int i2b_PVK_bio(BIO *out, const EVP_PKEY *pk, int enclevel,
                pem_password_cb *cb, void *u);
int i2b_PVK_bio_ex(BIO *out, const EVP_PKEY *pk, int enclevel,
                   pem_password_cb *cb, void *u,
                   OSSL_LIB_CTX *libctx, const char *propq);
```

DESCRIPTION

b2i_PVK_bio_ex() decodes a private key of MSBLOB format read from a **BIO**. It attempts to automatically determine the key type. If the key is encrypted then *cb* is called with the user data *u* in order to obtain a password to decrypt the key. The supplied library context *libctx* and property query string *propq* are used in any decrypt operation.

b2i_PVK_bio() does the same as **b2i_PVK_bio_ex()** except that the default library context and property query string are used.

i2b_PVK_bio_ex() encodes *pk* using MSBLOB format. If *enclevel* is 1 then a password obtained via *pem_password_cb* is used to encrypt the private key. If*encle vel* is 0 then no encryption is applied. The user data in *u* is passed to the password callback. The supplied library context *libctx* and property query string *propq* are used in any decrypt operation.

i2b_PVK_bio() does the same as **i2b_PVK_bio_ex()** except that the default library context and property query string are used.

RETURN VALUES

The **b2i_PVK_bio()** and **b2i_PVK_bio_ex()** functions return a valid **EVP_KEY** structure or **NULL** if an error occurs. The error code can be obtained by calling **ERR_get_error**(3).

i2b_PVK_bio() and **i2b_PVK_bio_ex()** return the number of bytes successfully encoded or a negative value if an error occurs. The error code can be obtained by calling **ERR_get_error**(3).

SEE ALSO

crypto(7), **d2i_PKCS8PrivateKey_bio**(3)

HISTORY

b2i_PVK_bio_ex() and **i2b_PVK_bio_ex()** were added in OpenSSL 3.0.

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