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

`$ man EVP_PKEY_set_type.3ossl`

`EVP_PKEY_SET_TYPE(3ossl)` `OpenSSL` `EVP_PKEY_SET_TYPE(3ossl)`

NAME

`EVP_PKEY_set_type`, `EVP_PKEY_set_type_str`, `EVP_PKEY_set_type_by_keymgmt`
- functions to change the `EVP_PKEY` type

SYNOPSIS

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

```
int EVP_PKEY_set_type(EVP_PKEY *pkey, int type);
```

```
int EVP_PKEY_set_type_str(EVP_PKEY *pkey, const char *str, int len);
```

```
int EVP_PKEY_set_type_by_keymgmt(EVP_PKEY *pkey, EVP_KEYMGMT *keymgmt);
```

DESCRIPTION

All the functions described here behave the same in so far that they clear all the previous key data and methods from `pkey`, and reset it to be of the type of key given by the different arguments. If `pkey` is `NULL`, these functions will still return the same return values as if it wasn't.

`EVP_PKEY_set_type()` initialises `pkey` to contain an internal legacy key.

When doing this, it finds a `EVP_PKEY_ASN1_METHOD(3)` corresponding to type, and associates `pkey` with the findings. It is an error if no

EVP_PKEY_ASN1_METHOD(3) could be found for type.

EVP_PKEY_set_type_str() initialises pkey to contain an internal legacy key. When doing this, it finds a EVP_PKEY_ASN1_METHOD(3) corresponding to str that has then length len, and associates pkey with the findings.

It is an error if no EVP_PKEY_ASN1_METHOD(3) could be found for type.

For both EVP_PKEY_set_type() and EVP_PKEY_set_type_str(), pkey gets a numeric type, which can be retrieved with EVP_PKEY_get_id(3). This numeric type is taken from the EVP_PKEY_ASN1_METHOD(3) that was found, and is equal to or closely related to type in the case of EVP_PKEY_set_type(), or related to str in the case of EVP_PKEY_set_type_str().

EVP_PKEY_set_type_by_keymgmt() initialises pkey to contain an internal provider side key. When doing this, it associates pkey with keymgmt.

For keys initialised like this, the numeric type retrieved with EVP_PKEY_get_id(3) will always be EVP_PKEY_NONE.

RETURN VALUES

All functions described here return 1 if successful, or 0 on error.

SEE ALSO

EVP_PKEY_assign(3), EVP_PKEY_get_id(3), EVP_PKEY_get0_RSA(3),
EVP_PKEY_copy_parameters(3), EVP_PKEY_ASN1_METHOD(3), EVP_KEYMGMT(3)

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