

NAME

`EVP_set_default_properties`, `EVP_default_properties_enable_fips`,
`EVP_default_properties_is_fips_enabled`, `EVP_get1_default_properties` – manage default properties for
future algorithm fetches

SYNOPSIS

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

```
int EVP_set_default_properties(OSSL_LIB_CTX *libctx, const char *propq);
char *EVP_get1_default_properties(OSSL_LIB_CTX *libctx);
int EVP_default_properties_enable_fips(OSSL_LIB_CTX *libctx, int enable);
int EVP_default_properties_is_fips_enabled(OSSL_LIB_CTX *libctx);
```

DESCRIPTION

EVP_set_default_properties() sets the default properties for all future EVP algorithm fetches, implicit as well as explicit. See "ALGORITHM FETCHING" in **crypto**(7) for information about implicit and explicit fetching.

`EVP_set_default_properties` stores the properties given with the string *propq* among the EVP data that's been stored in the library context given with *libctx* (NULL signifies the default library context).

Any previous default property for the specified library context will be dropped.

EVP_get1_default_properties() gets the default properties set for all future EVP algorithm fetches, implicit as well as explicit, for the specific library context.

EVP_default_properties_enable_fips() sets the 'fips=yes' to be a default property if *enable* is non zero, otherwise it clears 'fips' from the default property query for the given *libctx*. It merges the fips default property query with any existing query strings that have been set via **EVP_set_default_properties()**.

EVP_default_properties_is_fips_enabled() indicates if 'fips=yes' is a default property for the given *libctx*.

NOTES

EVP_set_default_properties() and **EVP_default_properties_enable_fips()** are not thread safe. They are intended to be called only during the initialisation phase of a *libctx*.

EVP_get1_default_properties() is not thread safe. The application must ensure that the context reference is valid and default fetching properties are not being modified by a different thread.

RETURN VALUES

EVP_set_default_properties() and **EVP_default_properties_enable_fips()** return 1 on success, or 0 on failure. An error is placed on the error stack if a failure occurs.

EVP_default_properties_is_fips_enabled() returns 1 if the 'fips=yes' default property is set for the given *libctx*, otherwise it returns 0.

EVP_get1_default_properties() returns allocated memory that must be freed by **OPENSSL_free**(3) on success and NULL on failure.

SEE ALSO

EVP_MD_fetch(3)

HISTORY

The functions **EVP_set_default_properties()**, **EVP_default_properties_enable_fips()**, **EVP_default_properties_is_fips_enabled()** were added in OpenSSL 3.0.

The function **EVP_get1_default_properties()** was added in OpenSSL 3.5.

COPYRIGHT

Copyright 2019–2021 The OpenSSL Project Authors. All Rights Reserved.

Licensed under the Apache License 2.0 (the "License"). You may not use this file except in compliance with the License. You can obtain a copy in the file LICENSE in the source distribution or at <<https://www.openssl.org/source/license.html>>.