

NAME

DSA_set_default_method, DSA_get_default_method, DSA_set_method, DSA_new_method,
DSA_OpenSSL - select DSA method

SYNOPSIS

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

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)**:

```
void DSA_set_default_method(const DSA_METHOD *meth);
```

```
const DSA_METHOD *DSA_get_default_method(void);
```

```
int DSA_set_method(DSA *dsa, const DSA_METHOD *meth);
```

```
DSA *DSA_new_method(ENGINE *engine);
```

```
const DSA_METHOD *DSA_OpenSSL(void);
```

DESCRIPTION

All of the functions described on this page are deprecated. Applications should providers instead of method overrides.

A **DSA_METHOD** specifies the functions that OpenSSL uses for DSA operations. By modifying the method, alternative implementations such as hardware accelerators may be used. **IMPORTANT:** See the **NOTES** section for important information about how these DSA API functions are affected by the use of **ENGINE** API calls.

Initially, the default **DSA_METHOD** is the OpenSSL internal implementation, as returned by **DSA_OpenSSL()**.

DSA_set_default_method() makes **meth** the default method for all DSA structures created later. **NB:** This is true only whilst no **ENGINE** has been set as a default for DSA, so this function is no longer recommended. This function is not thread-safe and should not be called at the same time as other OpenSSL functions.

DSA_get_default_method() returns a pointer to the current default **DSA_METHOD**. However, the meaningfulness of this result is dependent on whether the **ENGINE** API is being used, so this function is no longer recommended.

DSA_set_method() selects **meth** to perform all operations using the key **rsa**. This will replace the **DSA_METHOD** used by the DSA key and if the previous method was supplied by an **ENGINE**, the handle to that **ENGINE** will be released during the change. It is possible to have DSA keys that only work with certain **DSA_METHOD** implementations (e.g. from an **ENGINE** module that supports embedded hardware-protected keys), and in such cases attempting to change the **DSA_METHOD** for the key can have unexpected results. See **DSA_meth_new(3)** for information on constructing custom **DSA_METHOD** objects;

DSA_new_method() allocates and initializes a DSA structure so that **engine** will be used for the DSA operations. If **engine** is **NULL**, the default engine for DSA operations is used, and if no default **ENGINE** is set, the **DSA_METHOD** controlled by **DSA_set_default_method()** is used.

RETURN VALUES

DSA_OpenSSL() and **DSA_get_default_method()** return pointers to the respective **DSA_METHODS**.

DSA_set_default_method() returns no value.

DSA_set_method() returns nonzero if the provided **meth** was successfully set as the method for **dsa** (including unloading the **ENGINE** handle if the previous method was supplied by an **ENGINE**).

DSA_new_method() returns **NULL** and sets an error code that can be obtained by **ERR_get_error(3)** if the allocation fails. Otherwise it returns a pointer to the newly allocated structure.

SEE ALSO

DSA_new(3), **DSA_new(3)**, **DSA_meth_new(3)**

HISTORY

All of these functions were deprecated in OpenSSL 3.0.

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