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Rocky Enterprise Linux 9.2 Manual Pages on command 'RAND_query_egd_bytes.3ossl'

\$ man RAND_query_egd_bytes.3ossl

RAND_EGD(3ossl) OpenSSL RAND_EGD(3ossl)

NAME

RAND_egd, RAND_egd_bytes, RAND_query_egd_bytes - query entropy gathering daemon

SYNOPSIS

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

```
int RAND_egd_bytes(const char *path, int num);
```

```
int RAND_egd(const char *path);
```

```
int RAND_query_egd_bytes(const char *path, unsigned char *buf, int num);
```

DESCRIPTION

On older platforms without a good source of randomness such as "/dev/urandom", it is possible to query an Entropy Gathering Daemon (EGD) over a local socket to obtain randomness and seed the OpenSSL

RNG. The protocol used is defined by the EGDs available at [<http://egd.sourceforge.net/>](http://egd.sourceforge.net/) or [<http://prngd.sourceforge.net/>](http://prngd.sourceforge.net/).

`RAND_egd_bytes()` requests `num` bytes of randomness from an EGD at the specified socket path, and passes the data it receives into `RAND_add()`.

`RAND_egd()` is equivalent to `RAND_egd_bytes()` with `num` set to 255.

`RAND_query_egd_bytes()` requests `num` bytes of randomness from an EGD at the specified socket path, where `num` must be less than 256. If `buf` is `NULL`, it is equivalent to `RAND_egd_bytes()`. If `buf` is not `NULL`, then the data is copied to the buffer and `RAND_add()` is not called.

OpenSSL can be configured at build time to try to use the EGD for seeding automatically.

RETURN VALUES

`RAND_egd()` and `RAND_egd_bytes()` return the number of bytes read from the daemon on success, or -1 if the connection failed or the daemon did not return enough data to fully seed the PRNG.

`RAND_query_egd_bytes()` returns the number of bytes read from the daemon on success, or -1 if the connection failed.

SEE ALSO

`RAND_add(3)`, `RAND_bytes(3)`, `RAND(7)`

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