**MongoDB and TLS/SSL Libraries** On Linux platforms, you may observe one of the following statements in the MongoDB log:

```
<path to SSL libs>/libssl.so.<version>: no version information available (required by /usr/bin/mongod
<path to SSL libs>/libcrypto.so.<version>: no version information available (required by /usr/bin/mon
```

These warnings indicate that the system's TLS/SSL libraries are different from the TLS/SSL libraries that the `mongod` was compiled against. Typically these messages do not require intervention; however, you can use the following operations to determine the symbol versions that `mongod` expects:

```
objdump -T <path to mongod>/mongod | grep " SSL_"
objdump -T <path to mongod>/mongod | grep " CRYPTO_"
```

These operations will return output that resembles one the of the following lines:

```
0000000000000000      DF *UND*       0000000000000000  libssl.so.10 SSL_write
0000000000000000      DF *UND*       0000000000000000  OPENSSL_1.0.0 SSL_write
```

The last two strings in this output are the symbol version and symbol name. Compare these values with the values returned by the following operations to detect symbol version mismatches:

```
objdump -T <path to TLS/SSL libs>/libssl.so.1*
objdump -T <path to TLS/SSL libs>/libcrypto.so.1*
```

This procedure is neither exact nor exhaustive: many symbols used by `mongod` from the `libcrypto` library do not begin with `CRYPTO_`.

#### MongoDB on Windows

#### MongoDB Using MMAPv1

**Install Hotfix for MongoDB 2.6.6 and Later** Microsoft has released a hotfix for Windows 7 and Windows Server 2008 R2, KB2731284[66], that repairs a bug in these operating systems' use of memory-mapped files that adversely affects the performance of MongoDB using the MMAPv1 storage engine.

Install this hotfix to obtain significant performance improvements on MongoDB 2.6.6 and later releases in the 2.6 series, which use MMAPv1 exclusively, and on 3.0 and later when using MMAPv1 as the storage engine.

**Configure Windows Page File For MMAPv1** Configure the page file such that the minimum and maximum page file size are equal and at least 32 GB. Use a multiple of this size if, during peak usage, you expect concurrent writes to many databases or collections. However, the page file size does not need to exceed the maximum size of the database.

A large page file is needed as Windows requires enough space to accommodate all regions of memory mapped files made writable during peak usage, regardless of whether writes actually occur.

The page file is not used for database storage and will not receive writes during normal MongoDB operation. As such, the page file will not affect performance, but it must exist and be large enough to accommodate Windows' commitment rules during peak database use.

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**Note:** Dynamic page file sizing is too slow to accommodate the rapidly fluctuating commit charge of an active MongoDB deployment. This can result in transient overcommitment situations that may lead to abrupt server shutdown with a VirtualProtect error 1455.

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[66] http://support.microsoft.com/kb/2731284