- The SSL CA certificate is self signed.
- The SSL server and client certificates are signed with the CA certificate and key, using the `sha256WithRSAEncryption` signature algorithm.
- SSL certificates use these Common Name (CN) values, with the appropriate certificate type (CA, Server, Client):

  ```
  ca.pem:         MySQL_Server_suffix_Auto_Generated_CA_Certificate
  server-cert.pm: MySQL_Server_suffix_Auto_Generated_Server_Certificate
  client-cert.pm: MySQL_Server_suffix_Auto_Generated_Client_Certificate
  ```

  The *`suffix`* value is based on the MySQL version number. For files generated by `mysql_ssl_rsa_setup`, the suffix can be specified explicitly using the `--suffix` option.

  For files generated by the server, if the resulting CN values exceed 64 characters, the *`_suffix`* portion of the name is omitted.
- SSL files have blank values for Country (C), State or Province (ST), Organization (O), Organization Unit Name (OU) and email address.
- SSL files created by the server or by `mysql_ssl_rsa_setup` are valid for ten years from the time of generation.
- RSA files do not expire.
- SSL files have different serial numbers for each certificate/key pair (1 for CA, 2 for Server, 3 for Client).
- Files created automatically by the server are owned by the account that runs the server. Files created using `mysql_ssl_rsa_setup` are owned by the user who invoked that program. This can be changed on systems that support the `chown()` system call if the program is invoked by `root` and the `--uid` option is given to specify the user who should own the files.
- On Unix and Unix-like systems, the file access mode is 644 for certificate files (that is, world readable) and 600 for key files (that is, accessible only by the account that runs the server).

To see the contents of an SSL certificate (for example, to check the range of dates over which it is valid), invoke `openssl` directly:

```
openssl x509 -text -in ca.pem
openssl x509 -text -in server-cert.pem
openssl x509 -text -in client-cert.pem
```

It is also possible to check SSL certificate expiration information using this SQL statement:

```
mysql> SHOW STATUS LIKE 'Ssl_server_not%';
+-----------------------+-------------------------+
| Variable_name         | Value                   |
+-----------------------+-------------------------+
| Ssl_server_not_after  | Apr 28 14:16:39 2027 GMT |
| Ssl_server_not_before | May  1 14:16:39 2017 GMT |
+-----------------------+-------------------------+
```

6.3.3.2 Creating SSL Certificates and Keys Using openssl

This section describes how to use the `openssl` command to set up SSL certificate and key files for use by MySQL servers and clients. The first example shows a simplified procedure such as you might use from the command line. The second shows a script that contains more detail. The first two examples are intended for use on Unix and both use the `openssl` command that is part of OpenSSL. The third example describes how to set up SSL files on Windows.