

- `SUBJECT 'subject'`

For all accounts named by the statement, requires that clients present a valid X.509 certificate containing the subject `subject`. If a client presents a certificate that is valid but has a different subject, the server rejects the connection. Use of X.509 certificates always implies encryption, so the `SSL` option is unnecessary in this case.

```
ALTER USER 'jeffrey'@'localhost'  
  REQUIRE SUBJECT '/C=SE/ST=Stockholm/L=Stockholm/  
    O=MySQL demo client certificate/  
    CN=client/emailAddress=client@example.com';
```

MySQL does a simple string comparison of the `'subject'` value to the value in the certificate, so lettercase and component ordering must be given exactly as present in the certificate.

Because `SUBJECT` implies the requirements of `x509`, clients must specify the `--ssl-key` and `--ssl-cert` options to connect. (It is recommended but not required that `--ssl-ca` also be specified so that the public certificate provided by the server can be verified.)

- `CIPHER 'cipher'`

For all accounts named by the statement, requires a specific cipher method for encrypting connections. This option is needed to ensure that ciphers and key lengths of sufficient strength are used. Encryption can be weak if old algorithms using short encryption keys are used.

```
ALTER USER 'jeffrey'@'localhost'  
  REQUIRE CIPHER 'EDH-RSA-DES-CBC3-SHA';
```

The `SUBJECT`, `ISSUER`, and `CIPHER` options can be combined in the `REQUIRE` clause:

```
ALTER USER 'jeffrey'@'localhost'  
  REQUIRE SUBJECT '/C=SE/ST=Stockholm/L=Stockholm/  
    O=MySQL demo client certificate/  
    CN=client/emailAddress=client@example.com'  
  AND ISSUER '/C=SE/ST=Stockholm/L=Stockholm/  
    O=MySQL/CN=CA/emailAddress=ca@example.com'  
  AND CIPHER 'EDH-RSA-DES-CBC3-SHA';
```

ALTER USER Resource-Limit Options

It is possible to place limits on use of server resources by an account, as discussed in [Section 6.2.20, “Setting Account Resource Limits”](#). To do so, use a `WITH` clause that specifies one or more `resource_option` values.

Order of `WITH` options does not matter, except that if a given resource limit is specified multiple times, the last instance takes precedence.

`ALTER USER` permits these `resource_option` values:

- `MAX_QUERIES_PER_HOUR count`, `MAX_UPDATES_PER_HOUR count`,
`MAX_CONNECTIONS_PER_HOUR count`

For all accounts named by the statement, these options restrict how many queries, updates, and connections to the server are permitted to each account during any given one-hour period. If `count` is 0 (the default), this means that there is no limitation for the account.

- `MAX_USER_CONNECTIONS count`

For all accounts named by the statement, restricts the maximum number of simultaneous connections to the server by each account. A nonzero `count` specifies the limit for the account explicitly. If `count`