Scope	Global
Dynamic	No
SET_VAR Hint Applies	No
Type	Integer
Default Value	5000
Minimum Value	5000
Maximum Value	4095000

The number of hash rounds used by the caching_sha2_password authentication plugin for password storage.

Increasing the number of hashing rounds above the default value incurs a performance penalty that correlates with the amount of increase:

- Creating an account that uses the caching_sha2_password plugin has no impact on the client session within which the account is created, but the server must perform the hashing rounds to complete the operation.
- For client connections that use the account, the server must perform the hashing rounds and save the result in the cache. The result is longer login time for the first client connection, but not for subsequent connections. This behavior occurs after each server restart.

- caching_sha2_password_auto_generate_rsa_keys

Command-Line Format	--caching-sha2-password-auto-generate-rsa-keys[={OFF|ON}]
System Variable	caching_sha2_password_auto_generate_rsa_keys
Scope	Global
Dynamic	No
SET_VAR Hint Applies	No
Type	Boolean
Default Value	ON

The server uses this variable to determine whether to autogenerate RSA private/public key-pair files in the data directory if they do not already exist.

At startup, the server automatically generates RSA private/public key-pair files in the data directory if all of these conditions are true: The sha256_password_auto_generate_rsa_keys or caching_sha2_password_auto_generate_rsa_keys system variable is enabled; no RSA options are specified; the RSA files are missing from the data directory. These key-pair files enable secure password exchange using RSA over unencrypted connections for accounts authenticated by the sha256_password or caching_sha2_password plugin; see Section 6.4.1.3, “SHA-256 Pluggable Authentication”, and Section 6.4.1.2, “Caching SHA-2 Pluggable Authentication”.

For more information about RSA file autogeneration, including file names and characteristics, see Section 6.3.3.1, “Creating SSL and RSA Certificates and Keys using MySQL”

The auto_generate_certs system variable is related but controls autogeneration of SSL certificate and key files needed for secure connections using SSL.