

A.17.14 How do I change (rotate, re-key) the master encryption key?

[InnoDB](#) data-at-rest encryption uses a two tier key mechanism. When data-at-rest encryption is used, individual tablespace keys are stored in the header of the underlying tablespace data file. Tablespace keys are encrypted using the master encryption key. The master encryption key is generated when tablespace encryption is enabled, and is stored outside the database. The master encryption key is rotated using the `ALTER INSTANCE ROTATE INNODB MASTER KEY` statement, which generates a new master encryption key, stores the key, and rotates the key into use.

A.17.15 How do I migrate data from a cleartext [InnoDB](#) tablespace to an encrypted [InnoDB](#) tablespace?

Transferring data from one tablespace to another is not required. To encrypt data in an [InnoDB](#) file-per-table tablespace, run `ALTER TABLE tbl_name ENCRYPTION = 'Y'`. To encrypt a general tablespace or the `mysql` tablespace, run `ALTER TABLESPACE tablespace_name ENCRYPTION = 'Y'`. Encryption support for general tablespaces was introduced in MySQL 8.0.13. Encryption support for the `mysql` system tablespace is available as of MySQL 8.0.16.

A.18 MySQL 8.0 FAQ: Virtualization Support

A.18.1 Is MySQL supported on virtualized environments such as Oracle VM, VMWare, Docker, Microsoft Hyper-V, or others? 5279**A.18.1** Is MySQL supported on virtualized environments such as Oracle VM, VMWare, Docker, Microsoft Hyper-V, or others?

MySQL is supported on virtualized environments, but is certified only for [Oracle VM](#). Contact Oracle Support for more information.

Be aware of potential problems when using virtualization software. The usual ones are related to performance, performance degradations, slowness, or unpredictability of disk, I/O, network, and memory.