Compressed Backup

*Percona XtraBackup* has implemented support for compressed backups. It can be used to compress/decompress local or streaming backup with [xbstream](https://www.percona.com/doc/percona-xtrabackup/2.3/glossary.html#term-xbstream).

Creating Compressed Backups

In order to make a compressed backup you’ll need to use [xtrabackup --compress](https://www.percona.com/doc/percona-xtrabackup/2.3/xtrabackup_bin/xbk_option_reference.html#cmdoption-xtrabackup-compress) option:

$sudo du –sh \* [verify the space, you will get some idea ]

---Full backup

$ xtrabackup --user=bkp --password=bkp123 --backup --compress --target-dir=/root/backups/compress/

If you want to speed up the compression you can use the parallel compression, which can be enabled with [xtrabackup --compress-threads](https://www.percona.com/doc/percona-xtrabackup/2.3/xtrabackup_bin/xbk_option_reference.html#cmdoption-xtrabackup-compress-threads) option. Following example will use four threads for compression:

$ xtrabackup --user=bkp --password=bkp123 --backup --compress --compress-threads=4 --target-dir=/root/backups/compress

Output should look like this

190406 22:51:00 [01] ...done

190406 22:51:00 [01] Compressing ./sys/statements\_with\_temp\_tables.frm to /root/backups/compress/sys/statements\_with\_temp\_tables.frm.qp

190406 22:51:00 [01] ...done

190406 22:51:00 [01] Compressing ./sys/x@0024schema\_flattened\_keys.frm to /root/backups/compress/sys/x@0024schema\_flattened\_keys.frm.qp

190406 22:51:00 [01] ...done

190406 22:51:00 Finished backing up non-InnoDB tables and files

190406 22:51:00 [00] Compressing /root/backups/compress/xtrabackup\_binlog\_info.qp

190406 22:51:00 [00] ...done

190406 22:51:00 Executing FLUSH NO\_WRITE\_TO\_BINLOG ENGINE LOGS...

xtrabackup: The latest check point (for incremental): '2740968847'

xtrabackup: Stopping log copying thread.

.190406 22:51:00 >> log scanned up to (2740968856)

190406 22:51:01 Executing UNLOCK TABLES

190406 22:51:01 All tables unlocked

190406 22:51:01 [00] Compressing ib\_buffer\_pool to /root/backups/compress/ib\_buffer\_pool.qp

190406 22:51:01 [00] ...done

190406 22:51:01 Backup created in directory '/root/backups/compress/'

MySQL binlog position: filename 'mysql-bin.000091', position '154'

190406 22:51:01 [00] Compressing /root/backups/compress/backup-my.cnf.qp

190406 22:51:01 [00] ...done

190406 22:51:01 [00] Compressing /root/backups/compress/xtrabackup\_info.qp

190406 22:51:01 [00] ...done

xtrabackup: Transaction log of lsn (2740968847) to (2740968856) was copied.

190406 22:51:01 completed OK!

PREPARING THE BACKUP

Before you can prepare the backup you’ll need to uncompress all the files. *Percona XtraBackup* has implemented [xtrabackup --decompress](https://www.percona.com/doc/percona-xtrabackup/2.3/xtrabackup_bin/xbk_option_reference.html#cmdoption-xtrabackup-decompress) option that can be used to decompress the backup.

**Note:-**

Before proceeding you’ll need to make sure that [qpress](http://www.quicklz.com/) has been installed. It’s availabe from [Percona Software repositories](https://www.percona.com/doc/percona-xtrabackup/2.3/installation.html#installing-from-binaries)

$ xtrabackup --user=bkp --password=bkp123 --decompress --target-dir=/root/backups/compress/

1. compress this option is deprecated, in favor of 3rd party
2. decompress - documentation of decompress lists qpress is prerequisite   
   "This option requires that you have the qpress utility installed on your system."  
   Feel free to change the wording to stress the importance of qpress even more than it currently is.

Linux administrators Activity :-

root@dbacentre:~# wget http://www.quicklz.com/qpress-11-linux-x64.tar

root@dbacentre:~# tar xf qpress-11-linux-x64.tar

root@dbacentre:~# ls -lrt

total 172

-rwxrwxrwx 1 root root 75684 Sep 24 2010 qpress

-rw-r--r-- 1 root root 6334 Aug 15 2017 percona-release\_0.1-4.xenial\_all.deb

-rw-r--r-- 1 root root 2298 Mar 29 19:00 demo.sql

drwxr-xr-x 2 root root 4096 Apr 4 19:48 backups

-rwxrw-rw- 1 dba dba 81920 Apr 4 19:54 qpress-11-linux-x64.tar

root@dbacentre:~# cp qpress /usr/bin/qpress

root@dbacentre:~# chmod 755 /usr/bin/qpress

root@dbacentre:~# chown root:root /usr/bin/qpress

**Note**

[xtrabackup --parallel](https://www.percona.com/doc/percona-xtrabackup/2.3/xtrabackup_bin/xbk_option_reference.html#cmdoption-xtrabackup-parallel) can be used with [xtrabackup --decompress](https://www.percona.com/doc/percona-xtrabackup/2.3/xtrabackup_bin/xbk_option_reference.html#cmdoption-xtrabackup-decompress) option to decompress multiple files simultaneously.

*Percona XtraBackup* doesn’t automatically remove the compressed files. In order to clean up the backup directory you should use [xtrabackup --remove-original](https://www.percona.com/doc/percona-xtrabackup/2.3/xtrabackup_bin/xbk_option_reference.html#cmdoption-xtrabackup-remove-original) option. Even if they’re not removed these files will not be copied/moved over to the datadir if [xtrabackup --copy-back](https://www.percona.com/doc/percona-xtrabackup/2.3/xtrabackup_bin/xbk_option_reference.html#cmdoption-xtrabackup-copy-back) or [xtrabackup --move-back](https://www.percona.com/doc/percona-xtrabackup/2.3/xtrabackup_bin/xbk_option_reference.html#cmdoption-xtrabackup-move-back) are used.

Database Crash $rm -rf /var/lib/mysql

When the files are uncompressed you can prepare the backup with the [xtrabackup --prepare](https://www.percona.com/doc/percona-xtrabackup/2.3/xtrabackup_bin/xbk_option_reference.html#cmdoption-xtrabackup-prepare) option:

$ xtrabackup --user=bkp --password=bkp123 --prepare --target-dir=/root/backups/compress/

You should check for a confirmation message:

InnoDB: Starting shutdown...

InnoDB: Shutdown completed; log sequence number 9293846

170223 13:39:31 completed OK!

Now the files in /root/backups/compress/ are ready to be used by the server.

RESTORING THE BACKUP

**xtrabackup** has a [xtrabackup --copy-back](https://www.percona.com/doc/percona-xtrabackup/2.3/xtrabackup_bin/xbk_option_reference.html#cmdoption-xtrabackup-copy-back) option, which performs the restoration of a backup to the server’s [datadir](https://www.percona.com/doc/percona-xtrabackup/2.3/glossary.html#term-datadir):

$ xtrabackup --user=bkp --password=bkp123 --copy-back --target-dir=/root/backups/compress

It will copy all the data-related files back to the server’s [datadir](https://www.percona.com/doc/percona-xtrabackup/2.3/glossary.html#term-datadir), determined by the server’s my.cnf configuration file. You should check the last line of the output for a success message:

170223 13:49:13 completed OK!

You should check the file permissions after copying the data back. You may need to adjust them with something like:

$ chown -R mysql:mysql /var/lib/mysql

$ service mysql status

$ service mysql restart …verify again

<https://www.percona.com/doc/percona-xtrabackup/2.3/backup_scenarios/compressed_backup.html>