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Disk Space Configuration

QoE Stor uses several folders for storage:

- /var/qoestor/backend/dump – temporary data received by receivers is stored here. After being loaded into the database, this data is deleted.
- /var/lib/clickhouse/ - the so-called DEFAULT disk. Here, the database schema and data (raw and aggregated logs) are stored.
- /var/lib/clickhouse-hot/ - the so-called HOT disk.
- /var/lib/clickhouse-cold/ - the so-called COLD disk.

HOT and COLD disks are used when storage system cost reduction is needed.

DEFAULT must be very fast (e.g., NVMe SSD) to receive data from DPI, save it to the database in raw logs, and aggregate it (form aggregated logs).

The HOT disk can store aggregated logs for 1-2 weeks. The HOT disk should also be an SSD to quickly generate reports.

The COLD disk can store old data. COLD can be a SATA HDD disk, as reports on old data are rarely generated, and data can be stored on a slow disk.

For instructions on physically separating directories across disks, see below in the section "Configuring Storage on a Separate Disk".

Configuring Storage on a Separate Disk

By default, all data is stored in the /var partition.

Assume we have mounted a separate disk to /storage.

1. Work as the root user:

   ```
   sudo su
   ```

2. Stop the receivers and database:

   ```
   fastor-stop
   fastor-db-stop
   ```

3. Create directories in the /storage partition:

   ```
   mkdir /storage/qoestor
   mkdir /storage/qoestor/clickhouse
   mkdir /storage/qoestor/clickhouse-hot
   mkdir /storage/qoestor/clickhouse-cold
   mkdir /storage/qoestor/dump
   ```

4. Copy data to the new disk:

```
cp -r /var/lib/clickhouse/* /storage/qoestor/clickhouse
cp -r /var/lib/clickhouse-hot/* /storage/qoestor/clickhouse-hot
cp -r /var/lib/clickhouse-cold/* /storage/qoestor/clickhouse-cold
cp -r /var/qoestor/backend/dump/* /storage/qoestor/dump
```

5. Change the owner of the /storage/qoestor/clickhouse folder:

```
chown -R clickhouse:clickhouse /storage/qoestor/clickhouse
chown -R clickhouse:clickhouse /storage/qoestor/clickhouse-hot
chown -R clickhouse:clickhouse /storage/qoestor/clickhouse-cold
```

6. Remove the old directories:

```
rm -rf /var/lib/clickhouse
rm -rf /var/lib/clickhouse-hot
rm -rf /var/lib/clickhouse-cold
rm -rf /var/qoestor/backend/dump
```

7. Create symlinks:

```
ln -s /storage/qoestor/clickhouse /var/lib/clickhouse
ln -s /storage/qoestor/clickhouse-hot /var/lib/clickhouse-hot
ln -s /storage/qoestor/clickhouse-cold /var/lib/clickhouse-cold
ln -s /storage/qoestor/dump /var/qoestor/backend/dump
```

8. Check the links:

```
readlink -f /var/lib/clickhouse
readlink -f /var/lib/clickhouse-hot
readlink -f /var/lib/clickhouse-cold
readlink -f /var/qoestor/backend/dump
```

9. Start the database:

```
fastor-db-restart
```

10. Start the receivers:

```
fastor-restart
```