

LOKKBOX

DOCUMENTATION

MySQL BACKUP & RESTORE OPERATIONS

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1 Backup/Restore MySQL Server

This chapter will describe in details how to use Lokkbox OBM to backup your MySQL server and how you can restore your MySQL server from the database backup files.

1.1 Requirements

- i. Lokkbox OBM must be installed onto the computer running MySQL server.
- ii. Data from MySQL server will be backed up to a temporary directory before they are sent to Lokkbox OBS. Please make sure you have sufficient space on your computer to store these data when you run the backup job.
- iii. There must be a MySQL account can be used to connect from localhost.

Add two new MySQL accounts for Lokkbox OBM

```
mysql> GRANT ALL PRIVILEGES ON *.* TO 'root'@'localhost'  
-> IDENTIFIED BY 'some_pass';  
mysql> GRANT ALL PRIVILEGES ON *.* TO 'root'@'localhost.localdomain'  
-> IDENTIFIED BY 'some_pass';  
mysql> FLUSH PRIVILEGES;
```

They are superuser accounts with full privileges to do anything with a password of some_pass.


1.2 Overview

Lokkbox OBM will backup your MySQL server by taking the following steps:


- i. Run all Pre-Commands of this backup set
- ii. All database(s) (either local or external) selected are backed up to a temporary directory specified in its backup set
- iii. Run all Post-Commands of this backup set
- iv. Upload all backup files from the temporary directory to Lokkbox OBS
- v. Remove temporary files from the temporary directory if [Setting] -> [Temporary Directory for storing backup files] is enabled

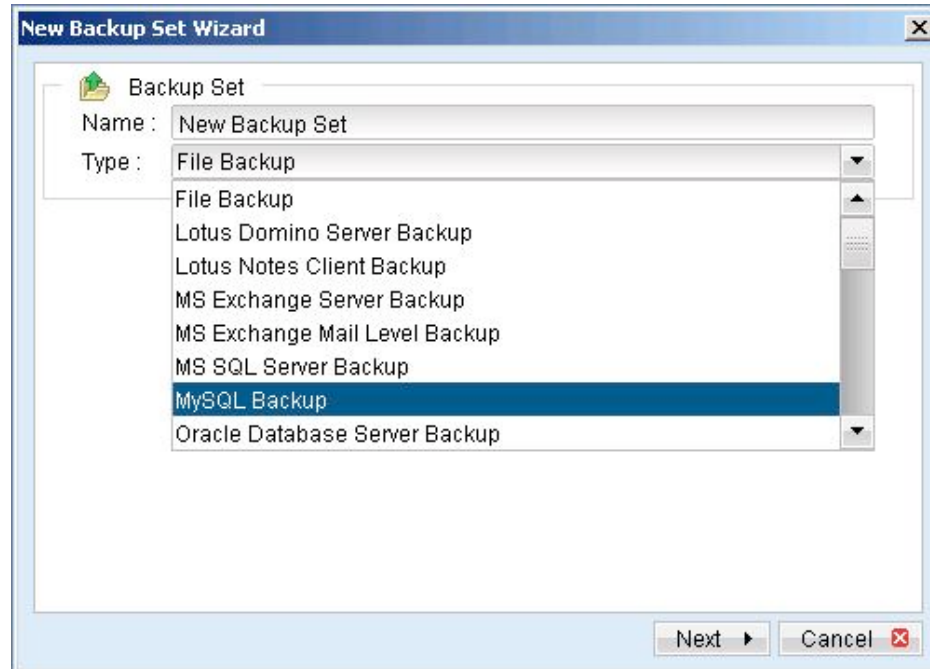
1.3 How to backup MySQL server on Windows

Please follow the instructions below to backup your MySQL server using Lokkbox OBM:

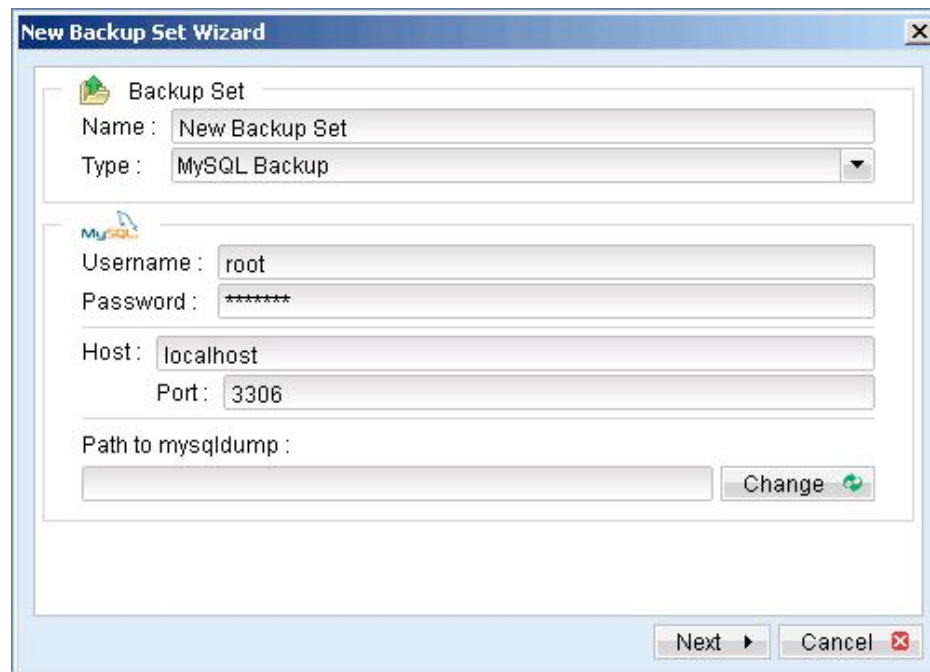
- i. Open Lokkbox OBM
- ii. From the Menu, Choose [Backup Set] -> [New] -> [MySQL Backup Set]
Create a backup set
 - a. To start setting up backup sets, click the  button to open the [Backup Setting]

dialog.

- b. On the left panel, press the  button to create a new backup set.
- c. On the dialog, choose [MySQL Backup] as the [Type].

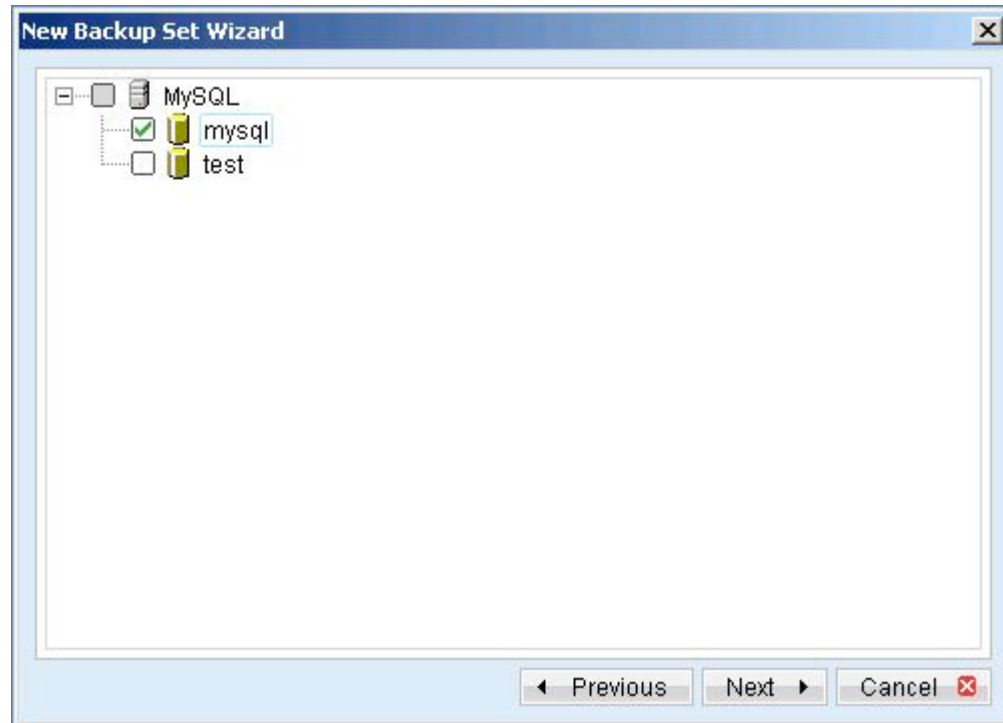


- d. Enter a name for your backup set

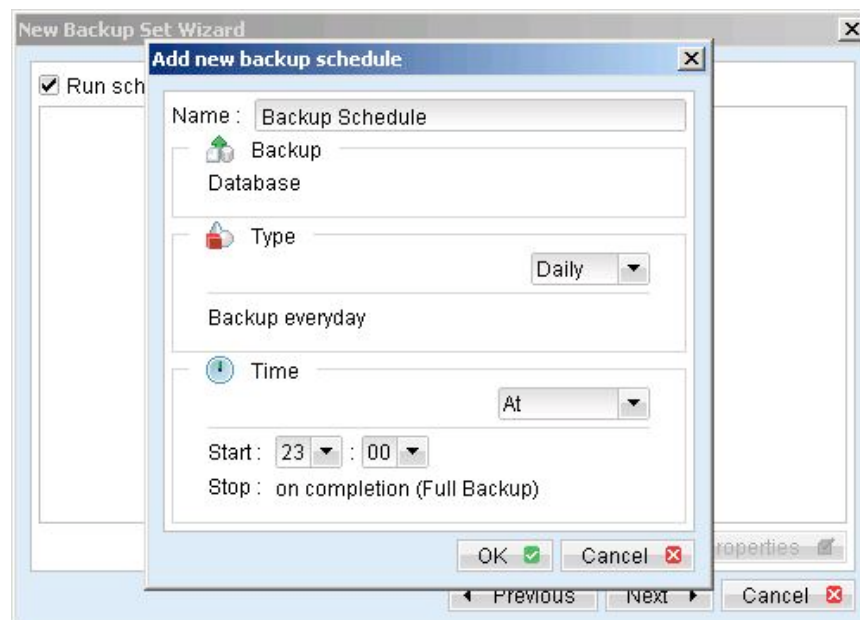


- e. Enter the root password, the MySQL server TCP/IP port number and the path to MySQL backup utility (mysqldump)

- f. Select the database(s) to be backup



- g. Enter a temporary directory for storing the backup files before they are sent to Lokkbox OBS, e.g. C:\Backup\MySQL
 h. Set the backup schedule for Database Backup

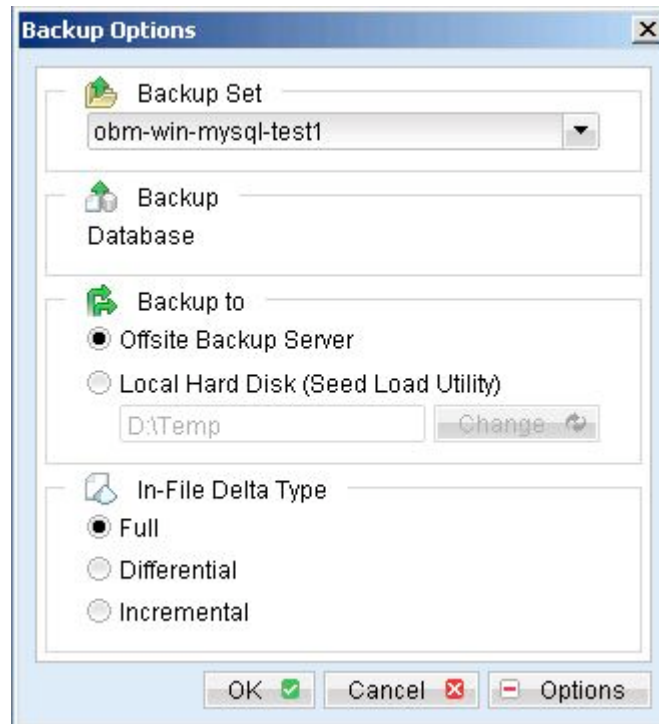


- i. Set the encryption algorithm, encryption mode and encrypting key for this backup set

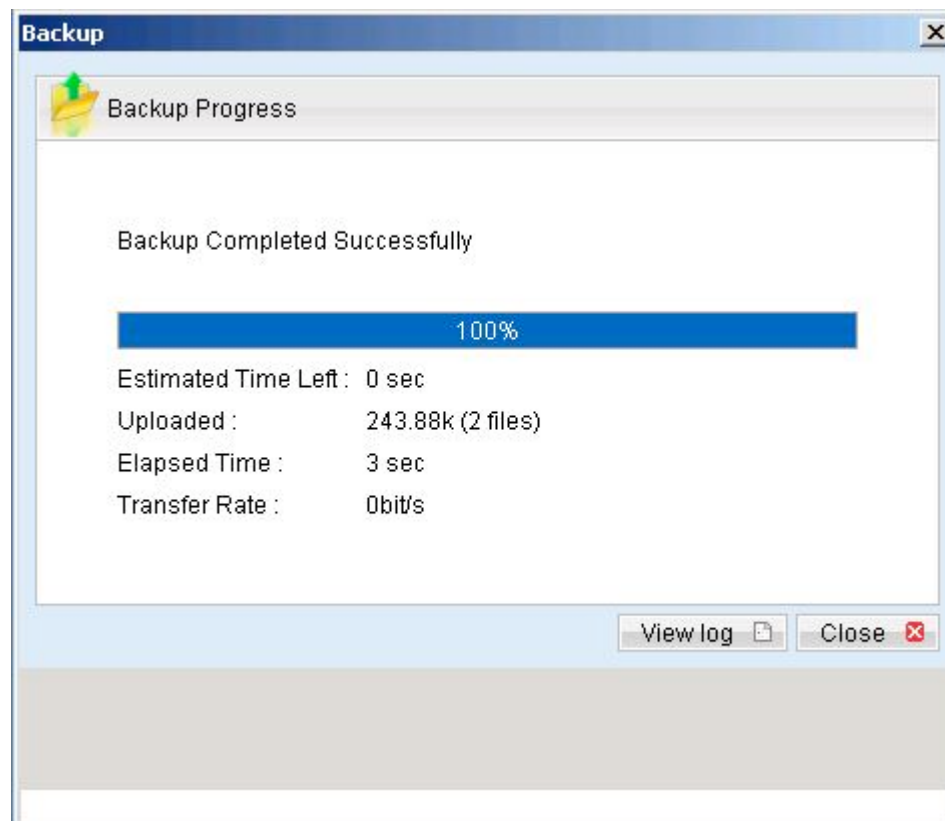


(Hint: For maximum security, please select AES (Advanced Encryption Standard) Algorithm, CBC (Cipher Block Chaining) mode and use an encrypting key with more than 8 characters.)

- iii. Run Backup
 - a. Press the [Backup] button on the main page of Lokkbox OBM dialog.
 - b. Select the backup set you want to run and select [Online Backup Service] to start backing up your files to Lokkbox OBS. If applicable, you can change the In-File Delta Type also.



- c. You should get something similar to the screen shot below.



1.4 How to backup MySQL server on Linux (command line mode)

If you want to setup Lokkbox OBM to backup MySQL server running on Linux using command line mode, please do the followings:

- i. Create a backup account on Lokkbox OBS
- ii. Logon to the web interface of Lokkbox OBS using the backup account created in the previous step (doesn't matter if it is not from the Linux server running the MySQL server to be backed up)
- iii. Create a new backup set by pressing the [Backup Set] -> [Add] button
- iv. Select the [Backup Set] -> [Type] -> [MySQL Database Server] radio button and press the [Update] button (which can be found at the bottom of the page)
- v. Setup all [Backup Set] -> [Database Backup Setting]

Settings	Descriptions
MySQL Username (e.g. root)	A MySQL user account that has backup access to the databases to be backed up (e.g. root). Please refer to the [Requirements] section for details
MySQL Password	Password of the MySQL user account being used
Host	IP address / Hostname of the MySQL Server, e.g. localhost
MySQL Connection TCP/IP Port	TCP/IP port used to access the MySQL Server (default: 3306)
Path to MySQL backup utility (mysqldump)	Full path to where mysqldump can be found (e.g. /usr/bin/mysqldump)
Temporary Spooling Directory	A temporary directory to be used to store all MySQL database dump files before they are uploaded to the backup server
Enable Delete Temp. File	Whether to delete the temporary MySQL database dump files after they are uploaded to the backup server

- vi. Setup the [Backup Set] -> [Backup Source] setting
 - Add an "MySQL" entry to the [Backup Source] if you want to backup all databases under this MySQL Server
 - Add two entries, "MySQL/database1" and "MySQL/database2", to the [Backup Source] if you want to backup both "database1" and "database2" under this MySQL Server

(Please use "\ " instead of "/" if the MySQL server to be backed up is running on Windows instead of Linux)

- vii. Setup the [Backup Set] -> [Backup Schedule] by pressing the [Add] link next the "Backup Schedule" sub-title
- viii. Install Lokkbox OBM onto the Linux server running MySQL server (Please refer to the installation of Lokkbox OBM section for details. The command line mode installation instructions are available on the web interface)
- ix. Completed

1.5 How to restore MySQL server

Please follow the instructions below to restore MySQL server from Lokkbox OBS.

- i. Download the database backup files to be restored from Lokkbox OBS
- ii. Restore the database named [db_name] from the database backup file [db_name.sql]:

- d. Connect to the MySQL server

```
(Windows) C:\> mysql
```

```
(Linux) [root@server ~]# mysql
```

- e. Create the database to be restored

```
mysql> CREATE DATABASE IF NOT EXISTS db_name
```

- f. Restore the database backup file back into the MySQL server

```
mysql> use db_name ;
```

```
mysql> source db_name.sql ;
```

If db_name.sql is not located in the current directory, please specify the full path to the db_name.sql file in the command above.

- iii. Repeat the same procedure for each database to be restored to the MySQL Server.
- iv. Completed