# XCAT 2 MySQL Setup

xcat-mysql

cat-mysql-2.*.gz.

---

xcat-mysql

/usr/local

/usr/local/mysql
/etc/profile

```
gunzip  xcat-mysql-2*.gz
tar -xvf xcat-mysql-2*.tar
./instmysql
```

```
perl-DBD-MySQ  *
mysql-server-!.*
mysql-!.*
mysql-"evel-!.*
mysql-#enc$-!.*
mysql-!.*
mysql-connector-o"#c-*
mysql-"evel-!.*
```

```
mysql-client-!*
li#mysqlclient%r&!*
li#qt'-sql-mysql-'*
li#mysqlclient&!-!*
perl-DBD-mysql-'*
mysql-!*
```

## *1.2 Configure and migrate xCAT to MySQL using mysqlsetup script*

## *1.3 Configure MySQL manually*

- mn2(
- xcat"#
- xcata"min
- xcat2(&

**All of the following steps should be run logged into the Management Node as root.**

m)group mysql
m)user pgrp*mysql mysql

c" /usr/local/mysql
c$o+n -, mysql .
c$grp -, mysql .

/usr/local/mysql/scripts/mysql%install%"# --user*mysql
/usr/#in/mysql%install%"# --user*mysql

**3. Edit server configuration file so that it runs in ANSI-QUOTES mode.**

cp /usr/local/mysql/support-files/my-large.cnf /etc/my.cnf

sql%mo"e*-.S/%Q*0123*S

.ote*4 /5* you are at x*6-2* 2.' or later sql%mo"e*-.S/%Q*0123*S is no longer require".

max%connections

my.cnf

sql%mo"e*-.S/%Q*0123*S*7*.

max%connections**8((*

c" /usr/local/mysql
c$o+n-, root .
c$o+n-, mysql "ata

ulimit -a
time9secon"s: unlimite"
file9#loc)s: 2*(;*<&*!*&
"ata9)#ytes: &*8*&*(*<2

stac)9)#ytes: 82<=>
memory9)#ytes: 82<=>
core"ump9#loc)s: 2(;<&!&
nofiles9"escriptors: 2(((
t$rea"s9per process: unlimite"

If not unlimited, change the ulimit setting to unlimited, for this session. coredump is optional.

*ulimit -m unlimited*
*ulimit -n unlimited*
*ulimit -d unlimited*
*ulimit -f unlimited*
*ulimit -s unlimited*
*ulimit -t unlimited*

root4

fsize * -&
core * -&
cpu * -&
"ata * -&
rss * -&
stac) * -&
nofiles * -&

**Start the MySQL server**

/usr/local/mysql/#in/mysql"%safe --user*mysql ?
9may nee" to $it enter to get prompt #ac):

/usr/#in/mysql"%safe --user*mysql ?

service mysql" start 9on sles service mysql start:

/usr/local/mysql/#in/mysqla"min -u root -p s$ut"o+n

/usr/#in/mysqla"min -u root -p s$ut"o+n

service mysql" stop

1n inux@ c$ec) /var/log/mysql".log.

mysql424once4/usr/local/mysql/#in/mysql"%safe --user*mysql ?
c$)config mysql" on 9 on sles c$)config mysql on:

/usr/local/mysql/#in/mysqla"min -u root pass+or" Ane+-pass+or"A
/usr/#in/mysqla"min -u root pass+or" Ane+-pass+or"A

/usr/local/mysql/#in/mysql -u root -p
/usr/#in/mysql -u root -p

**Create the xcatdb database**

6,3-23 D-2-B-S3 xcat"#B

**Create the xcatadmin id and password**

6,3-23 0S3, xcata"min /D3.2/5/3D BC Axcat2(&AB

**Create the lists of hosts that will have permission to access the database.**

D, - . 2 - on xcat"#.* 21 xcata"min E mn2( /D3 . 2/5/3D BC xcat2(&B

D, - . 2 - on xcat"#.* 21 xcata"min E Fserviceno"e9s:G /D3 . 2/5/3D BC xcat2(&B

**Note: You want to do a GRANT ALL to every ipaddress or nodename that will need to access the database. You can use wildcards as follows:**

D, - . 2 - on xcat"#.* 21 xcata"min E H.cluster.net /D3 . 2/5/3D BC xcat2(&B
D, - . 2 - on xcat"#.* 21 xcata"min E >.&&8.88.H /D3 . 2/5/3D BC xcat2(&B

S3 362 $ost user 5 , 1M mysql.user

```
+---------------------------+-----------+
| host                      | user      |
+---------------------------+-----------+
| %                         | xcatadmin |
| 127.0.0.1                 | root      |
| %cluster.net              | xcatadmin |
| 8.113.33%                 | xcatadmin |
| mn20                      | xcatadmin |
| localhost                 |           |
| localhost                 | root      |
+---------------------------+-----------+
```

S I 1 J K- ,/-B 3S

S I 1 J D-2-B-S3S

```
+--------------------+
| Database           |
+--------------------+
| information_schema |
| mysql              |
| test               |
```

```
| xcatdb             |
+--------------------+
```

use xcat"#B
S*I 1 J 2*-B *3*SB
D*3*S*6 , /*B*3 F*ta#le name*G*B

quit*B*

## *1.4 Migrate xCAT data to MySQL*

m*)"*ir -p *L*/xcat-*"##*ac*)*
*"*umpx*6 - 2"#* -p *L*/xcat-*"##*ac*)*

. ote*4* if you get an error@ li*)*e *M6*onnection failure*4 / 1 44*Soc*)*et*44*SS *4* connect*4* *6*onnection refuse" at....@*7* ma*)*e sure your xcat" "aemon is running.

**Creating the /etc/xcat/cfgloc file**

/etc/xcat/cfgloc

mysql*4"#*name*xcat"#B*$ost*mn2*(*Nxcata"minNxcat2*(&*

c$mo" (=(( /etc/xcat/cfgloc

O6-2BCP-SS*& restorex6-2"# -p L/xcat-"##ac)

. ote4 if you get errors@ c$ec) to ma)e sure you up"ate" t$e my.cnf files as in"icate" a#ove so t$at is runs in -. S/-Q0123S mo"e. /f you still $ave errors@ you can go #ac) to using SQlite@ #y moving /etc/xcat/cfgloc to /etc/xcat/cfgloc.save an" restarting xcat".

xcatstart 9x6-22.' restartxcat":
service xcat" restart

!. 2est t$e "ata#ase

ta#"ump site

## 1.5 Add ODBC support

**Note: You only need to follow the steps in this section on adding ODBC support, if you plan to develop C, C++ database applications on the database or run such applications (like LoadLeveler). Otherwise skip to the next section.**

**As of xCAT 2.3.1 or later, you can use mysqlsetup command in xCAT to perform the operations in steps 2 and 3 below. See manpage for mysqlsetup.**

unix1DB6 mysql-connector-o"#c
"ep-aix-xxxx.tar.gz mysql-connector-o"#c
xcat-mysql-xxxx.tar.gz .gz

rpm -i unix*1*DB*6*-*
rpm -i mysql-connector-o"#c-*

rpm -i unix*1*DB*6*-*
rpm -i mysql-connector-o"#c-*

rpm -i unix*1*DB*6*-*
rpm -i mysql-client-*
rpm -i li#mysqlclient*
rpm -i My*1*DB*6*-unix*1*DB*6*-* *9*

o"#cinst.ini an"
o"#c.ini
o"#cinst.ini li#myo"#c*Q*.so

rpm -ql mysql-connector-o"#c

vi /etc/o"#cinst.ini
```
[MySQL]
Description = ODBC for MySQL
Driver      = /usr/lib/libmyodbc3.so
```

rpm -ql My*1*DB*6*-unix*1*DB*6*

vi /etc/unix*1*DB*6*/o"#cinst.ini
```
[MySQL]
Description = ODBC for MySQL
```

```
Driver      = /usr/lib64/libmyodbc3.so
```

o#"c.ini

vi /etc/o"#c.ini

```
[xCATDB]
Driver   = MySQL
SERVER   = mn20
PORT     = 3306
DATABASE = xcatdb
```

vi /etc/unix*1*DB*6*/o"#c.ini

```
[xCATDB]
Driver   = MySQL
SERVER   = mn20
PORT     = 3306
DATABASE = xcatdb
```

/etc/xcat/cfgloc

i *L*/.o"#c.ini

```
[xCATDB]
SERVER = mn20
DATABASE = xcatdb
USER     = xcatadmin
PASSWORD = xcat20l
```

c$mo" *(=((* .o"#c.ini

**Skip this step if there are no service nodes in the cluster.**

x6-22on-/O0p"ates.p"f

o"#cinst.ini  o"#c.ini

x"cp service -v /etc/o"#cinst.ini /etc/o"#cinst.ini
x"cp service  -v /etc/o"#c.ini /etc/o"#c.ini
x"cp service  -v /.o"#c.ini /.o"#c.ini

x"cp service -v /etc/o"#cinst.ini  /etc/o"#cinst.ini
x"cp service  -v /etc/o"#c.ini  /etc/o"#c.ini
x"cp service  -v /root/.o"#c.ini  /root/.o"#c.ini

x"cp service  -v /etc/unix1DB6/o"#cinst.ini  /etc/unix1DB6/o"#cinst.ini
x"cp service  -v /etc/unix1DB6/o"#c.ini  /etc/unix1DB6/o"#c.ini
x"cp service  -v /root/.o"#c.ini  /root/.o"#c.ini

/usr/local/#in/isql -v xcat"#
/usr/local/#in/isql -v xcat"# xcata"min xcat2(&
/usr/#in/isql -v xcat"#
/usr/#in/isql -v xcat"# xcata"min xcat2(&

/usr/local/#in/isql -v xcat"#

```
+--------------------+
| Connected!         |
|                    |
| sql-statement      |
| help[tablename]    |
| quit               |
+--------------------+
```

SQ G SI1J2-B 3SB

```
+--------------------+
| Tables_in_xcatdb   |
|--------------------|
| .                  |
| networks           |
```

```
| nodelist           |
| site               |
| .                  |
| .                  |
+--------------------+
```

```
SQL> DESCRIBE site;
+----------+--------------+------+-----+---------+-------+
| Field    | Type         | Null | Key | Default | Extra |
+----------+--------------+------+-----+---------+-------+
| key      | varchar(128) | NO   | PRI |         |       |
| value    | text         | YES  |     | NULL    |       |
| comments | text         | YES  |     | NULL    |       |
| disable  | text         | YES  |     | NULL    |       |
+----------+--------------+------+-----+---------+-------+
```

SQ quit

## 1.6 Removing MySQL xcatd database

m)"ir -p L/xcat-"##ac)
"umpx6 - 2"# -p L/xcat-"##ac)

/usr/local/mysql/#in/mysql -u root -p
4 /usr/#in/mysql -u root -p

"rop "ata#ase xcat"#

O6 - 2BCP - SS*& restorex6 - 2"# -p L/xcat-"##ac)

## 1.7 Migrate to new level MySQL

&.8 Migrate x6 - 2 "ata to MySQ .

&.2 6onfigure MySQ

xcatstop 9x6 - 22.' stopsrc -s xcat":
service xcat" stop

c" /usr/local
rm mysql

&.& /nstall MySQ

&.& /nstall MySQ &.2 6onfigure MySQ

&.8 Migrate x6 - 2 "ata to MySQ .

/usr/local mysql-!.(.=<-aix!.8-po+erpc-='#it /usr/local

## 1.8 References

- http://www.pantz.org/software/mysql/mysqlcommands.html
- http://dev.mysql.com/doc/refman/5.0/en/tutorial.html