

[Mini-Howtos](#)[Forums](#)[News](#)[Search](#)[Contribute](#)[Membership](#)[Advertise](#)[Contact](#)[Howtos](#)

➔ Options For This Howto

- [Free Support](#)
- [Paid Support](#)

eisy

- [Howtos](#)
 - [Linux](#)
 - [CentOS](#)
 - [Debian](#)
 - [Fedora](#)
 - [Kernel](#)
 - [Mandriva](#)
 - [PCLinuxOS](#)
 - [SuSE](#)
 - [Ubuntu](#)
 - [Apache](#)
 - [Backup](#)
 - [Control Panels](#)
 - [DNS](#)
 - [Desktop](#)
 - [Email](#)
 - [Anti-Spam/Virus](#)
 - [Postfix](#)
 - [Procmail](#)
 - [Sendmail](#)
 - [FTP](#)
 - [Monitoring](#)
 - [MySQL](#)
 - [Programming](#)
 - [C/C++](#)
 - [PHP](#)
 - [Samba](#)
 - [Security](#)
 - [Anti-Spam/Virus](#)
 - [Virtualization](#)
 - [Other](#)
 - [FreeBSD](#)
 - [Commercial](#)
- [Mini-Howtos](#)
- [Forums](#)
- [Screenshots](#)
- [News](#)
- [Search](#)
- [Contribute](#)
- [Membership](#)
- [Login](#)
- [My Workspace](#)
- [Site Map](#)
- [Advertise](#)
- [Contact](#)
- [Disclaimer](#)
- [Imprint](#)

[. Log Out](#)

Screenshots

- [. Asianux 2.0](#)
- [. Blag Linux 30001](#)
- [. Blag Linux 49999 \(alpha\)](#)
- [. CentOS 4.2](#)
- [. Debian Sid \(Xfce\)](#)
- [. Fedora Core 4](#)
- [. Fedora Core 5](#)
- [. Fedora Core 6](#)
- [. IPCop 1.4.10](#)
- [. Kanotix 2005-03](#)
- [. Knoppix 4.02](#)
- [. Kubuntu 5.10 RC1](#)
- [. Kurumin Linux 6.0](#)
- [. Mandriva 2006 Powerpack+](#)
- [. Mandriva 2006 RC2](#)
- [. PCLinux OS 0.92](#)
- [. Slackware 10.2](#)
- [. SuSE 10.0 \(OSS\)](#)
- [. Symphony OS BETA1 PR1](#)
- [. Ubuntu 5.10 Preview](#)
- [. Ubuntu 6.06 LTS](#)
- [. Xandros 3.0.2 Open Circulation Edition](#)

Newsletter

Subscribe to HowtoForge Newsletter

and stay informed about our latest HOWTOs and projects.

(To unsubscribe from our newsletter send a blank email with the subject 'unsubscribe' to:

newsletter@howtoforge.com.)

Who's online

There are currently 10 users and 2083 guests online.

HowtoForge Forums

[Saved sessions.](#)

[Cant Find welcome mail](#)

[Mailuser and Aliases](#)

[internal dummy connection](#)

[mod_security breaking ispc](#)

[How to change file rights?](#)

[Viewing awstats](#)

[Proftpd-Mysql on Ubuntu Breezy](#)

[ISP Donfig IP setting question.](#)

[PHP binary does not work](#)

Browse archives

« August 2007

Mo	Tu	We	Th	Fr	Sa	Su
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

News

[EnGarde Secure Community 3.0.16 \(Version 3.0, Release 16\).](#)

[Wyse adds SUSE Linux to its thin clients](#)

[Interview: Matthew Dillon](#)

[Second Life coders challenge to rebuild Sentenal](#)

[Migrating from Windows to Linux](#)

[Press Release: Lenovo and Novell Unveil Linux-enabled ThinkPad Mobile Workstation](#)

[Press Release: Lenovo and Novell Unveil Linux-enabled ThinkPad Mobile Workstation](#)

[Google Using OpenMoko For gPhone?](#)

[Monitor Your Systems With FreeIPMI](#)

[FreeBSD Apply Binary Security Updates and Patch management](#)

[more](#)

Recent comments

[command missing after mysql password set](#)
7 hours 33 min ago

[mysqldump use](#)
16 hours 19 min ago

[Thanks for your commitment!](#)
16 hours 48 min ago

[Nice article](#)
1 day 20 hours ago

[I can't believe](#)
3 days 3 hours ago

[Howto?](#)
3 days 20 hours ago

[If you are on Debian or](#)
4 days 17 hours ago

[On Ubuntu Feisty](#)
4 days 21 hours ago

[great as far as it goes...](#)
5 days 4 hours ago

[Non supported Ati cards](#)
5 days 7 hours ago

Syndicate

XML

You are here: [Home](#) » [How To Set Up A Load-Balanced MySQL Cluster](#) » [How To Set Up A Load-Balanced MySQL Cluster - Page 3](#)

How To Set Up A Load-Balanced MySQL Cluster - Page 3

Submitted by falko on Mon, 2006-03-27 12:09. ::

4 Test The MySQL Cluster

Our MySQL cluster configuration is already finished, now it's time to test it. On the cluster management server (*loadb1.example.com*), run the cluster management client *ndb_mgm* to check if the cluster nodes are connected:

[loadb1.example.com:](#)

```
ndb_mgm
```

You should see this:

```
-- NDB Cluster -- Management Client --
ndb_mgm>
```

Now type `show;` at the command prompt:

```
show;
```

The output should be like this:

```
ndb_mgm> show;
Connected to Management Server at: localhost:1186
Cluster Configuration
-----
[ndbd(NDB)] 2 node(s)
id=2 @192.168.0.101 (Version: 5.0.19, Nodegroup: 0, M
id=3 @192.168.0.102 (Version: 5.0.19, Nodegroup: 0)

[ndb_mgmd(MGM)] 1 node(s)
id=1 @192.168.0.103 (Version: 5.0.19)

[mysqld(API)] 2 node(s)
id=4 @192.168.0.101 (Version: 5.0.19)
id=5 @192.168.0.102 (Version: 5.0.19)
```

If you see that your nodes are connected, then everything's ok!

Type

```
quit;
```

to leave the `ndb_mgm` client console.

Now we create a test database with a test table and some data on `sql1.example.com`:

sql1.example.com:

```
mysql -u root -p
CREATE DATABASE mysqlclustertest;
USE mysqlclustertest;
CREATE TABLE testtable (i INT) ENGINE=NDBCLUSTER;
INSERT INTO testtable () VALUES (1);
SELECT * FROM testtable;
quit;
```

(Have a look at the `CREATE` statement: We must use `ENGINE=NDBCLUSTER` for all database tables that we want to get clustered! If you use another engine, then clustering will not work!)

The result of the `SELECT` statement should be:

```
mysql> SELECT * FROM testtable;
+-----+
| i     |
+-----+
| 1     |
+-----+
1 row in set (0.03 sec)
```

Now we create the same database on `sql2.example.com` (yes, we still have to create it, but afterwards `testtable` and its data should be replicated to `sql2.example.com` because `testtable` uses `ENGINE=NDBCLUSTER`):

sql2.example.com:

```
mysql -u root -p
CREATE DATABASE mysqlclustertest;
USE mysqlclustertest;
SELECT * FROM testtable;
```

The `SELECT` statement should deliver you the same result as before on `sql1.example.com`:

```
mysql> SELECT * FROM testtable;
+-----+
| i     |
+-----+
| 1     |
+-----+
1 row in set (0.04 sec)
```

So the data was replicated from `sql1.example.com` to `sql2.example.com`. Now we insert another row into `testtable`:

sql2.example.com:

```
INSERT INTO testtable () VALUES (2);
quit;
```

Now let's go back to `sql1.example.com` and check if we see the new row there:

[sql1.example.com:](#)

```
mysql -u root -p
USE mysqlclustertest;
SELECT * FROM testtable;
quit;
```

You should see something like this:

```
mysql> SELECT * FROM testtable;
+-----+
| i     |
+-----+
| 1     |
| 2     |
+-----+
2 rows in set (0.05 sec)
```

So both MySQL cluster nodes always have the same data!

Now let's see what happens if we stop node 1 (`sql1.example.com`): Run

[sql1.example.com:](#)

```
killall ndbd
```

and check with

```
ps aux | grep ndbd | grep -iv grep
```

that all `ndbd` processes have terminated. If you still see `ndbd` processes, run another

```
killall ndbd
```

until all `ndbd` processes are gone.

Now let's check the cluster status on our management server (`loadb1.example.com`):

[loadb1.example.com:](#)

```
ndb_mgm
```

On the `ndb_mgm` console, issue

```
show;
```

and you should see this:

```
ndb_mgm> show;
Connected to Management Server at: localhost:1186
Cluster Configuration
-----
[ndbd(NDB)] 2 node(s)
id=2 (not connected, accepting connect from 192.168.0.101)
id=3 @192.168.0.102 (Version: 5.0.19, Nodegroup: 0, M

[ndb_mgmd(MGM)] 1 node(s)
id=1 @192.168.0.103 (Version: 5.0.19)

[mysqld(API)] 2 node(s)
id=4 @192.168.0.101 (Version: 5.0.19)
id=5 @192.168.0.102 (Version: 5.0.19)
```

You see, `sql1.example.com` is not connected anymore.

Type

```
quit;
```

to leave the `ndb_mgm` console.

Let's check `sql2.example.com`:

sql2.example.com:

```
mysql -u root -p
USE mysqlclustertest;
SELECT * FROM testtable;
quit;
```

The result of the `SELECT` query should still be

```
mysql> SELECT * FROM testtable;
+-----+
| i     |
+-----+
| 1     |
| 2     |
+-----+
2 rows in set (0.17 sec)
```

Ok, all tests went fine, so let's start our `sql1.example.com` node again:

sql1.example.com:

```
ndbd
```

[previous](#)[up](#)[next](#)How To Set Up A Load-Balanced MySQL Cluster
- Page 2How To Set Up A Load-Balanced MySQL Cluster
- Page 4

Copyright © 2006 Falko Timme
All Rights Reserved.

[add child page](#) |  print: [this](#) | [all](#) page(s) | [add new comment](#) |  [email this page](#) |  [view as pdf](#) | 

Related Tutorials

- [How To Set Up Database Replication In MySQL](#)
- [How To Set Up A Loadbalanced High-Availability Apache Cluster](#)
- [Setting Up A Highly Available NFS Server](#)



*Please do not use the comment function to ask for help! If you need help, please use our forum:
<http://www.howtoforge.com/forums>*



Comments will be published after administrator approval.

[Howtos](#) | [Mini-Howtos](#) | [Forums](#) | [Screenshots](#) | [News](#) | [Search](#) | [Contribute](#)
[Membership](#) | [Advertise](#) | [Contact](#) | [Disclaimer](#) | [Imprint](#)

Copyright © 2007 HowtoForge - Linux Howtos and Tutorials
All Rights Reserved.