

# Pack MySQL

## Abstract

This document describes how you can monitor an MySQL database server such as:

- Connection time
- The number of connections
- Cache hit
- etc

There are some steps you'll need to follow in order to monitor a new database machine:

- Understand what is already available (in the Shinken Enterprise installation)
- Setup the MySQL user account
- Test the connection to the database
- Setup your server host definition

## On this page

- Abstract
- What is already available in the Shinken Installation
  - Setup the MySQL user account
    - Test the connection
  - What is checked with the templates
    - Public templates
- Shinken Administrator templates (can't be seen by other users)
  - How to
- Configuration of Mysql-connection-method host template
  - Attach a MySQL template to you host

## What is already available in the Shinken Installation

To make your life a bit easier, a few configuration tasks have already been done for you:

1. Installation of check\_mysql\_health plugin : /var/lib/shinken/libexec/check\_mysql\_health
2. Several host templates are ready to be used



### Note

We suppose here that the MySQL server you want to monitor is named srv-lin-1 and is a Linux. Please change the configuration and commands according with the real name of your server.

## Setup the MySQL user account

Connect with a root account on your MySQL database. change 'password' with your mysql root password:

```
lin-srv-1:# mysql -u root -ppassword
```

And create a shinken user:

```
GRANT usage ON *.* TO 'shinken'@'%' IDENTIFIED BY 'shinkenpassword';
```

It's a good thing to change the shinkenpassword to another password. Then you need to update the /etc/shinken/resource.d/mysql.cfg

```
$MYSQLUSER$=shinken  
$MYSQLPASSWORD$=shinkenpassword
```

## Test the connection

To see if the connection to the MySQL server is ok, just launch :





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## What is checked with the templates

### Public templates

#### mysql

This is the very basic MySQL template allowing to know if your MySQL database server is running and usable.

Every MySQL templates (except Mysql-connection-method) use it as a parent template.

Check	Detail	Check range	Default Warning	Default Critical
connection	Time to connect to the server	0 to n	1	5
restart	Time the server is running	0 to n	10:	5:
slow_queries	slow_queries	0 to n	0.1	1

tmp_disk_tables	Percent of temp tables created on disk	0 to n	25	50
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## mysql-full

Contains all MySQL host templates listed in the Shinken Administrators templates.



### Warning

Using the *mysql-full* template will require a lot of resources on your poller daemon. We advise to use only the needed templates.

**Shinken Administrator templates (can't be seen by other users)**

## mysql-connection-method

This template describes the method to connect to MySQL server. Every MySQL templates use it as a parent template.

## mysql-cluster

This template gives informations about the MySQL cluster.

## mysql-innoDB

This template gives informations about innoDB buffers and logwaits.

Check	Detail	Check range	Default Warning	Default Critical
bufferpool_hitrate	InnoDB buffer pool hitrate	0 to n	99:	95:
bufferpool_wait_free	InnoDB buffer pool waits for clean page available	0 to n	1	10
log_waits	InnoDB log waits because of a too small log buffer	0 to n	1	10

## mysql-MyISAM

This template gives informations about MyISAM key cache hitrate.

Check	Detail	Check range	Default Warning	Default Critical
keycache-hitrate	MyISAM key cache hitrate	0 to n	99:	95:

## mysql-performance

This template gives informations about the global server performance.

Check	Detail	Check range	Default Warning	Default Critical
index_usage	Usage of indexes	0 to n	90:	80:
long_running_procs	long running processes	0 to n	10	20
table_lock_contention	Table lock contention	0 to n	1	2
tablecache_hitrate	Table cache hitrate	0 to n	99:	95:
threadcache_hitrate	Hit rate of the thread-cache	0 to n	10	20

## mysql-query-cache

This template gives informations about query cache.

Check	Detail	Check range	Default Warning	Default Critical
qcache_hitrates	Query cache hitrate	0 to n	90:	80:
qcache_lowmem_prunes	Query cache entries pruned because of low memory	0 to n	1	10

## mysql-usage

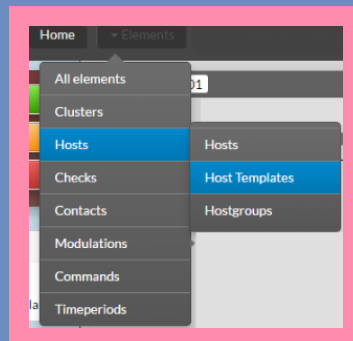
This template gives informations about MySQL server usage.

Check	Detail	Check range	Default Warning	Default Critical
open_files	Percent of opened files	0 to n	80	95
threads_connected	Number of currently open connections	0 to n	10	20

## How to

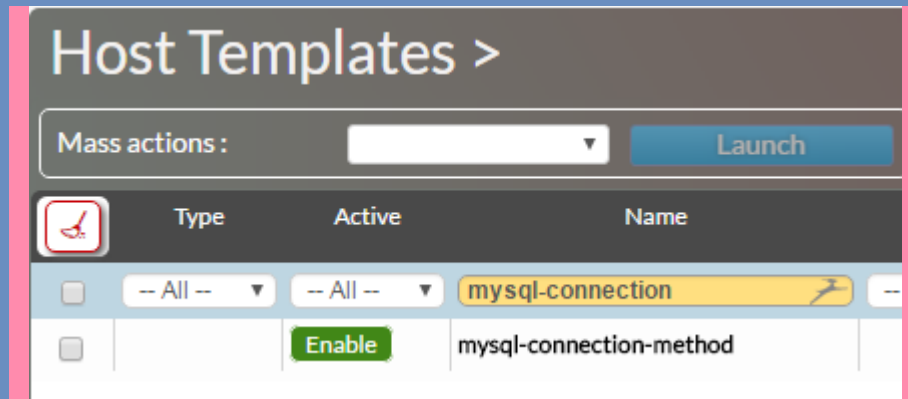
### Configuration of Mysql-connection-method host template

Click on **Hosts** then on **Hosts Templates** in the **Elements** menu



In the Name field, type **mysql-connection**.

Then clic on **mysql-connection-method**



Clic on **Data** tab

You can setup the following DATA :

- **MYSQLPASSWORD** : the MySQL password of the user used to connect to database
- **MYSQLUSER** : the MySQL user name used to connect to database

Local to the element	Name	Value
local [2/2]	MYSQLPASSWORD	\$MYSQLPASSWORD\$
	MYSQLUSER	\$MYSQLUSER\$

✔ You can also set the user and password directly in `/etc/shinken/resource.d/mysql.cfg`

```
$MYSQLUSER$=shinken  
$MYSQLPASSWORD$=shinkenpassword
```

## Attach a MySQL template to you host

Click on **Hosts** in the **Elements** menu

Home Elements To be applied [ 1 Change ]

- All elements
- Clusters
- Hosts
- Checks
- Contacts
- Modulations
- Commands
- Timeperiods

Hosts Host Templates Hostgroups

Add the chosen MySQL host template to the *Host Templates to inherit* field.

For example the *MySQL* host template.

Host Templates to inherit mysql [ 4 checks ] ×

Click on the **Data** tab

The screenshot shows the Nagios monitoring interface for a host named 'mysql-1'. The 'Data' tab is selected and highlighted with a pink border. The interface is divided into two main sections: a left sidebar with navigation options and a main content area on the right.

**Host > mysql-1**

**Generic \***

**Data [ 10 ]**

**Monitoring**

**Checks [ 4 ]**

**Notifications**

**Advanced**

**Local data & in**

**Local to the element**

local [ 0 ]

**From templates**

mysql [ 10 ]

Check if the Following data are ok.

The screenshot shows two data items listed in a box with a pink border:

MSSQLPASSWORD

MSSQLUSER