

Change user password in MySQL 5.7 with “plugin: auth_socket”

16

By [Miguel Angel Nieto](#)[MySQL](#)[Change user password in MySQL 5.7, plugin: auth_socket](#)[31 Comments](#)

Mar 2016 In this blog, we'll discuss how to use “plugin: auth_socket” to change user password in MySQL 5.7.

In Debian/Ubuntu it is pretty common to install MySQL/Percona Server with an empty password for the root user. After everything is configured and tested, then a password is set. This is not a good practice in production servers (or soon-to-be production servers), but you can do it for your own test servers. With regards to authentication, things have changed a bit in 5.7, and methods that worked before now need a different procedure.

Let's say that you install 5.7 and don't specify a password. You will see the following:



Shell

```
1 SELECT User, Host, HEX(authentication_string) FROM mysql.user;
2 +-----+-----+-----+
3 | User      | Host      | HEX(authentication_string) |
4 +-----+-----+-----+
5 | root      | localhost |                             |
```

OK, the password is empty. Let's change it:

Shell

```
1 mysql> ALTER USER 'root'@'localhost' IDENTIFIED BY 'test';
2
3 mysql> SELECT User, Host, HEX(authentication_string) FROM mysql.user;
4 +-----+-----+-----+
5 | User      | Host      | HEX(authentication_string) |
6 +-----+-----+-----+
7 | root      | localhost |                             |
```

That doesn't work, it's still empty:

Shell

```
1 mysql> SET PASSWORD FOR 'root'@'localhost' = PASSWORD('test');
2
3 mysql> SELECT User, Host, HEX(authentication_string) FROM mysql.user;
4 +-----+-----+-----+
5 | User      | Host      | HEX(authentication_string) |
6 +-----+-----+-----+
7 | root      | localhost |                             |
```

But why? Let's check the warnings:

Shell

```
1 mysql> show warnings;
2 +-----+-----+-----+
3 | Level  | Code  | Message |
4 +-----+-----+-----+
5 | Warning | 1287 | 'SET PASSWORD FOR = PASSWORD(')' is deprecated and will be removed in a future release. Please use SE |
6 | Note   | 1699 | SET PASSWORD has no significance for user 'root'@'localhost' as authentication plugin does not support |
7 +-----+-----+-----+
```

The problem is in the note coded 1699. This user is using an authentication plugin that doesn't support a password. Which one could it be?

Shell

```
1 mysql> SELECT * from user where User="root"G
2 ***** 1. row *****
3           Host: localhost
4           User: root
5 [...]
6           plugin: auth_socket
7 [...]
```

Ok, [auth_socket](#). If you install 5.7 and don't provide a password to the root user, it will use the auth_socket plugin. That plugin doesn't care and doesn't need a password. It just checks if the user is connecting using a UNIX socket and then compares the username.

If we want to configure a password, we need to change the plugin and set the password at the same time, in the same command. First changing the plugin and then setting the password won't work, and it will fall back to auth_socket again. So, run:



Shell

```
ALTER USER 'root'@'localhost' IDENTIFIED WITH mysql_native_password BY 'test';
```

And now, it works 😊

Shell

```
1 | mysql> SELECT User, Host, HEX(authentication_string) FROM mysql.user;
2 | +-----+-----+-----+
3 | | User      | Host      | HEX(authentication_string) |
4 | +-----+-----+-----+
5 | | root      | localhost | 2A393442444345424531393038334345324131463935394644430324639363443374146344346433239 |
```

If your deployments use empty passwords, and you change them later on, remember to update your scripts/recipes!

Related

Use MySQL Without a Password (and Still be Secure)
November 1, 2019
In "Insight for DBAs"

Where is the MySQL 5.7 root password?
May 18, 2016
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Author



Miguel Angel Nieto

Miguel joined Percona in October 2011. He has worked as a System Administrator for a Free Software consultant and in the supporting area of the biggest hosting company in Spain. His current focus is improving MySQL and helping the community of Free Software to grow.

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Comments (31)



huck

thanks a lot for this post. I have spent the last 24 hours recovering from failed upgrade from ubuntu 14.04 to 16.04. The upgrade of mysql failed, and left the database inaccessible. At least one of the problems turned out to be that the root password was "". Your process above allowed me to login to the db again.
If you ever get to Portland ORE, I will buy you a beer. Cheers!

Reply



Miguel Angel Nieto

Hey Huck, I will let you know! I want that beer 😊

Reply

May 25, 2016 at 3:57 pm

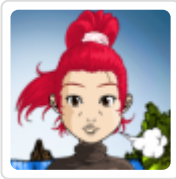


Tonya Ohrel

I could kiss you!

Reply

June 17, 2016 at 6:22 pm



Mih

Oh thank you, it's perfect. You deserve really a good bier. In France if you come, it will be with pleasure.

Reply

June 21, 2016 at 4:28 pm



Miguel Angel Nieto

Beers and kisses are always welcome 😊 Glad to see you have found the post useful. Thanks for the feedback.

Reply

June 29, 2016 at 3:58 am



iow

If the commande "ALTER USER 'root'@'localhost' IDENTIFIED WITH mysql_native_password BY 'test';" doesn't work you can try :
UPDATE mysql.user SET authentication_string = PASSWORD('test'), plugin = 'mysql_native_password' WHERE User = 'root' AND Host = 'localhost';
FLUSH PRIVILEGES;
It worked for me.
Thanks for the hint, anyway !

Reply

August 4, 2016 at 8:54 am



boonsiri

thank you very much it work for me too.

Reply

August 24, 2016 at 12:38 pm

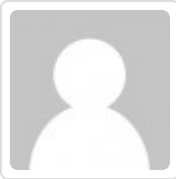


TJ Khara

Hi,
When I tried what is suggested in this article I get the following problem:
mysql> ALTER USER 'root'@'localhost' IDENTIFIED WITH mysql_native_password BY 'RSbj1409';
ERROR 1396 (HY000): Operation ALTER USER failed for 'root'@'localhost'
When I tried what you have suggested I get this:
UPDATE mysql.user SET authentication_string = PASSWORD('test'), plugin = 'mysql_native_password'
WHERE User = 'root' AND Host = 'localhost';
ERROR 1054 (42S22): Unknown column "root" in 'where clause'
Could you please suggest what else I could try to resolve this?
Thanks.

Reply

July 30, 2018 at 2:44 pm



Hamid Abbasi

you should replace all single quotation marks with English keyboard " ' " .

Reply

November 18, 2018 at 8:53 am

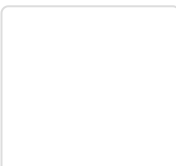


khessels

Thanks man, Worked like a charm...

Reply

August 9, 2016 at 10:56 pm



Anders

Reply





I nank you, you saved me from a lot of frustration and searching for a solution.

August 15, 2016 at 2:13 pm



Matthew Watkins (NCSU)

[↩ Reply](#)

Thank you so much, you saved my laptop from being destroyed by an angry fist of death just now

August 25, 2016 at 9:59 am



Bhargava Sai Yenugula

[↩ Reply](#)

thank you very much for this post 😊

August 28, 2016 at 10:13 am



Álvaro Larumbe

[↩ Reply](#)

Thanks a lot! You saved a lot of time!

September 19, 2016 at 3:43 am



blogpakhaji

[↩ Reply](#)

fresh install percona in ubuntu 14.04 :
i cant get root password
and i tried to login into
mysql -u root -p
always fail
how to login to mysql root with blank password (fresh install)
i didn't understand socket auth things
thanks

December 28, 2016 at 2:26 am



Sonu Sindhu

[↩ Reply](#)

That is exactly what I was looking from an hour or so.
Thanks man!

February 3, 2017 at 1:24 pm



Penca Seca

[↩ Reply](#)

Thanks a lot, this worked perfectly for Ubuntu 16.04.
This is actually the only thing that really works out of the box with a simple statement... there are lots of posts on Stackoverflow and other sites with complex solutions (that don't work) and require you to start mysql in safe mode.

February 3, 2017 at 1:55 pm



Jeremy Morgan

[↩ Reply](#)

Many thanks Miguel! I was having problems accessing our Mantis Bug Tracking DB after an upgrade from Ubuntu 12.04 to 16.04. We had a blank password. None of the other methods that I found on Google worked – until I found this one.

October 18, 2017 at 6:07 am



Erik Jansen

[↩ Reply](#)

Using MariaDB and i have sort of the same problem.
It seems my installation is useing the auth_socket plugin but the query's listed did not help me change/set the password.
At the moment i don't have root acces.
ALTER USER 'root'@'localhost' IDENTIFIED WITH mysql_native_password BY 'test'
comes back with the error:
ALTER: command not found
and:
UPDATE mysql.user SET authentication_string = PASSWORD('test'), plugin = 'mysql_native_password' WHERE User = 'root' AND Host = 'localhost';
comes back with the following:
ERROR 1054 (42S22): Unknown column "root" in 'where clause'



Also I only get to see an -> when I execute the query:
SELECT user,host FROM mysql.user

November 3, 2017 at 7:46 pm



TJ Khara

Facing a very similar issue with MySQL. Did you figure out what can be done?

Reply

July 30, 2018 at 2:46 pm



joe shmoe

YOU FREAKING SAVED MY COMPUTER FROM BEING TOSSED OUT THE WINDOW!!!

Reply

February 2, 2018 at 2:14 am



Caribou

I was looking for 2 hours how to set this ***** password, thank you very much !!!

Reply

April 13, 2018 at 4:39 am



Wells

You saved me!!!!!! Thank you xoxoxoxo

Reply

May 1, 2018 at 3:00 pm



Bridge

Yes, this solution works, great.

Reply

May 3, 2018 at 3:11 am



Theo

Thanks for your solution. I have a fresh installation with ubuntu server 18.04 and phpmyadmin had no permissions at all.

Reply

May 8, 2018 at 4:45 am



Jake

Thank you for this, I could see the problem but was not finding any way to change the authentication type for the root user. Your solution finally worked.

Reply

May 22, 2018 at 11:45 am



TJ Khara

Hi,
I think this is the closest I have reached to solving this problem, but I'm still not done.
Here is the error message I see when I do as you've suggested in this article:
mysql> ALTER USER 'root'@'localhost' IDENTIFIED WITH mysql_native_password BY 'test';
ERROR 1396 (HY000): Operation ALTER USER failed for 'root'@'localhost'
Could you please see what else I could do to resolve this?
Thanks.

Reply

July 30, 2018 at 2:43 pm



Raymond

Finally a solution that works! Thanks so much. In summary I had to do
sudo mysql -u root
use mysql;
ALTER USER 'root'@'localhost' IDENTIFIED WITH mysql_native_password BY 'test';

Reply

November 21, 2018 at 9:03 pm



Tom

Reply



My fix:

```
sudo mkdir /var/run/mysqld
sudo chown mysql:mysql /var/run/mysqld
sudo service mysql stop
sudo mysqld_safe --skip-grant-tables --user=mysql &
mysql
>FLUSH PRIVILEGES;
>ALTER USER 'root'@'localhost' IDENTIFIED WITH mysql_native_password BY 'your_new_password';
>EXIT;
```

The FLUSH PRIVILEGES was a requirement. Throws skip-grant-tables error if you don't.

December 4, 2018 at 10:47 am



b8RvYtXAH GM
9Kf7 GVfwe7aObPRI9Ksa8 NHr

[↩ Reply](#)

February 25, 2019 at 7:59 am



ijf8090

Works for me on MySQL Server version: 5.7.28-0ubuntu0.18.04.4 (Ubuntu)

Minor typo

```
mysql> SELECT * from user where User="root"G
```

should be

```
mysql> SELECT * from user where User="root";
```

This generate a lot of extra data that make the output hard to read so I did

```
SELECT Host,User,plugin,authentication_string from mysql.user where User="root";
```

Add me to the beer list

Best regards

Ian

[↩ Reply](#)

January 21, 2020 at 9:46 am

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