

SSH Key: "Permissions 0644 for 'id_rsa.pub' are too open." on mac

Asked 10 years, 6 months ago Modified 1 year, 2 months ago Viewed 892k times



I generate a ssh key pair on my mac and add the public key to my ubuntu server(in fact, it is a virtual machine on my mac),but when I try to login the ubuntu server,it says:

721



```

@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
@                WARNING: UNPROTECTED PRIVATE KEY FILE!                @
@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
Permissions 0644 for '/Users/tudouya/.ssh/vm/vm_id_rsa.pub' are too open.
It is required that your private key files are NOT accessible by others.
This private key will be ignored.
bad permissions: ignore key: /Users/tudouya/.ssh/vm/vm_id_rsa.pub
Permission denied (publickey,password).

```



I have tried many ways to solve this, change the key file mode, change the folder mode,as some answer on stackoverflow,but it doesn't work.

the key file permission:

```

vm dir:
drwxr-xr-x  4 tudouya  staff   136  4 29 10:37 vm

key file:
-rw-----  1 tudouya  staff  1679  4 29 10:30 vm_id_rsa
-rw-r--r--  1 tudouya  staff   391  4 29 10:30 vm_id_rsa.pub

```

please give me some idea... =====

I write the host infomation to ssh_config:

```

Host ubuntuvm
  Hostname 10.211.55.17
  PreferredAuthentications publickey
  IdentityFile /Users/tudouya/.ssh/vm/vm_id_rsa.pub

```

I run command "ssh -v ubuntuvm",it displays:

```

ssh -v ubuntuvm
OpenSSH_6.2p2, OpenSSL 0.9.8r 8 Dec 2011
debug1: Reading configuration data /etc/ssh_config
debug1: /etc/ssh_config line 20: Applying options for *
debug1: /etc/ssh_config line 103: Applying options for *
debug1: /etc/ssh_config line 175: Applying options for ubuntuvm
debug1: Connecting to 10.211.55.17 [10.211.55.17] port 22.
debug1: Connection established.

```


1 Could you edit your question to include the specific ssh command that you're running? If the key file in question is specified in the ssh config file, please include the relevant line(s) from the config file as well. – Kenster Apr 29, 2015 at 10:10

To me was "bad permissions" – insign May 25, 2017 at 20:23

2 I face this problem when add `-i id_rsa.pub` at the ssh command use for connection. Seems that enforcing to use some public key on the ssh command force to ask for password (even when the passphrase was empty, at least on my case) – Diego Andrés Díaz Espinoza Feb 4, 2020 at 18:32

5 It's actually insane that these guys take the effort to print that message, including the current permission value, but don't tell you what should the permission be. It's like a "I could tell you, but this is Linux, so I'll keep it cryptic so you have to Google and waste time" attitude. – Chris Vilches Mar 31, 2022 at 8:35

1 @DiegoAndrésDíazEspinoza for ssh -i you should specify a private key. For ssh-copy-id -i you should specify a public key! what's happening for you is you are doing ssh and specifying a public key(wrong move), and it thinks you're specifying a private key , uses it as a private key, that then fails so it asks for a password cos the ssh server is set to allow passwords when keys don't work – barlop Jun 12, 2022 at 17:27

26 Answers

Sorted by: Highest score (default)



I suggest you to do:

1471

```
chmod 400 ~/.ssh/id_rsa
```



It works fine for me.



Share Improve this answer Follow

edited Aug 5, 2020 at 9:46

answered Jun 12, 2016 at 21:48



Erazihel

7,645 ● 6 ● 34 ● 56



Rick Benetti

14.9k ● 2 ● 14 ● 6

Sign up to request clarification or add additional context in comments.



7 Comments

Add a comment



parasrish Over a year ago

"Permissions 0644 for 'id_rsa.pub' are too open." and the key was hence ignored. This was probably because i copied the key-file, from my another PC. But fixing permissions fixed the issue. thx!

69

Reply



Gerard Over a year ago

@xoxn--1'w3k4n Why is this so bad? It makes sense if people copied or otherwise poorly managed their read-write access to these sensitive files, that they should be fixed.

 [Albea](#) Over a year ago 2 Reply ...

This is not duct tape. If you copied over your ids, this makes sense.

▲ 6 Reply ...

 [Nick](#) Over a year ago

Worked for me as a solution when copying ssh keys from old computer!

▲ 4 Reply ...

 [h-rai](#) Over a year ago

Works on WSL too

▲ 11 Reply ...

|



```
debug1: identity file /Users/tudouya/.ssh/vm/vm_id_rsa.pub type 1
```

315



It appears that you're trying to use the wrong key file. The file with the ".pub" extension contains the *public* portion of the key. The corresponding file without the ".pub" extension contains the *private* part of the key. When you run an ssh client to connect to a remote server, you have to provide the private key file to the ssh client.



You probably have a line in the your `.ssh/config` file (or `/etc/ssh_config`) which looks like this:



```
IdentityFile .../.ssh/vm/vm_id_rsa.pub
```

You need to remove the ".pub" extension from the filename:

```
IdentityFile .../.ssh/vm/vm_id_rsa
```

Share Improve this answer Follow

edited Oct 16, 2020 at 16:49

answered Apr 29, 2015 at 15:54



[Kenster](#)

25.8k ● 23 ● 87 ● 115

9 Comments ▼

Add a comment

 [Henry](#) Over a year ago

I was having this problem with SQLPro and had incorrectly selected the public (`.pub`) file instead of the private file.

▲ 0 Reply ...

 [user3064538](#) Over a year ago ✎

I got this error when I did `ssh -i id_ed25519.pub` whereas doing `ssh -i id_ed25519` works

▲ 3 Reply ...

 whenitrains Over a year ago

This should not be the accepted answer. @Rick Benetti's answer is simpler and applies to more situations.

▲ 1 Reply ...

 Yuriy Yakubskiy Over a year ago

Big thank! The real purpose, none of the suggested worked for me. The problem reproduces only on WSL2 while working on Ubuntu18 with *.pub

▲ 0 Reply ...

 Thiago Andrade Over a year ago ✎

Big thank! Helped me a lot!!!!

▲ 1 Reply ...

|



Key should be readable by the logged in user.

128

Try this:

```
chmod 400 ~/.ssh/Key_file
```



Share Improve this answer Follow

edited Oct 30, 2023 at 20:06

answered Oct 19, 2016 at 14:39



Naseef Chowdhury
2,484 ● 3 ● 32 ● 58



user3029620
1,547 ● 1 ● 10 ● 4

2 Comments ▾

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 rhand Over a year ago

With public key 400 or 600 I get invalid format doing `ssh-add ~/.ssh/id_rsa.pub`

▲ 7 Reply ...

 Harry Over a year ago

@rhand ssh-add needs the private key not the public one

▲ 6 Reply ...



```
chmod 400 path/to/filename
```

87

This work for me. When I did this file I am able to connect to my EC2 instance



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answered Oct 19, 2017 at 8:36



Muhammad Wajahat

Anwar

1,067 ● 11 ● 14



Comments

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change your KEY permission to

63

chmod 400 your_key.pem



It should work !



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answered Sep 17, 2021 at 4:07



Nikhil Babu

765 ● 5 ● 8



1 Comment ▼

Add a comment



Ben Over a year ago

[cyberciti.biz/faq/...](https://cyberciti.biz/faq/)

▲ 0

Reply



After running below command it works for me

33

```
sudo chmod 600 /path/to/my/key.pem
```



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answered Jun 26, 2019 at 6:51



Ashok

339 ● 3 ● 4



Comments

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In my case, it was a .pem file. Turns out holds good for that too. Changed permissions of the file and it worked.

22

```
chmod 400 ~/.ssh/dev-shared.pem
```



Thanks for all of those who helped above.



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answered Oct 1, 2018 at 9:20



Vaibhav Tripathi

333 ● 2 ● 10



Comments

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SSH keys are meant to be private so a `644` permission is too open.

21

Binary references to set Permissions

```
r(read) = 4  
w(write) = 2  
x(execute) = 1
```



So by adding these numbers and by passing the summed digit to chmod command, We set the permission of file/directory. The first digit sets permission for the owner, second digit for group and the third one for all other users on the system who have no right to the file.

```
A permission of 644 means  
(4+2) = read/write permission for the owner  
(4) = read permission for the group  
(4) = read permission for all other users
```

By changing the the permission of the file to `400` using

```
chmod 400 <filename>
```

solves the issue. As it makes the key read-only accessible to the owner.

Ref: <https://www.linux.com/training-tutorials/understanding-linux-file-permissions/>

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edited Jul 16, 2020 at 21:07

answered May 30, 2020 at 5:57



lbjunaid
522 ● 1 ● 6 ● 15

2 Comments ▼

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Dany Balian Over a year ago

if you are already using the private file (not the .pub file) then this is the right solution just `chmod 400 id_rsa_privatefilename` and try to connect again

▲ 0 Reply ...



Jeremy Over a year ago

Nice answer :o)

▲ 0 Reply ...



Lot's of similar answers but no explanations...

17

The error is thrown because the private key file permissions are too open. It is a security risk.



Change the permissions on the private key file to be minimal (read only by owner)



1. Change owner `chown <unix-name> <private-key-file>`



2. Set minimal permissions (read only to file owner) `chmod 400 <private-key-file>`

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answered Jan 24, 2019 at 17:08



James Wierzba
17.8k ● 16 ● 92 ● 136

Comments

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```
chmod 600 id_rsa
```

17

Run above command from path where key is stored in vm ex: `cd /home/opc/.ssh`



Share Improve this answer Follow

edited Oct 16, 2020 at 9:36

answered Oct 16, 2020 at 8:25



fcdt
2,521 ● 5 ● 17 ● 27



Hari Krishna
301 ● 2 ● 3



1 Comment ▼

Add a comment



[Gene](#) Over a year ago

600 gives read and write permission.

▲ 0 Reply ⋮



I have similar issue and solved it by changing the permission of the respective files and folder worked for me.

17

This is the solution which is worked for me:



```
$ chmod 0600 ~/.ssh/id_rsa.pub
$ chmod 0600 ~/.ssh/authorized_keys
$ chmod 0600 ~/.ssh/id_rsa
$ chmod 0700 ~/.ssh
```



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answered Aug 31, 2021 at 13:16



[Atul](#)

3,457 ● 34 ● 47

1 Comment ▼

Add a comment



[Cory Collier](#) Over a year ago ✎

the shorthand: `` \$ chmod 0600 ~/.ssh/* \$ chmod 0700 ~/.ssh ``

▲ 2 Reply ⋮



If the keys are in the ~/.ssh directory , use

16

chmod 400 ~/.ssh/id_rsa



If the keys are in different directory, use

chmod 400 directory_path/id_rsa



This worked for me.

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edited Apr 25, 2018 at 15:29

answered Jan 12, 2018 at 10:36



[Anirban](#)

393 ● 4 ● 7

6 Comments ▼

Add a comment



[Nico Haase](#) Over a year ago

How does this improve the other answers?

▲ 2 Reply ⋮



[Picarus](#) Over a year ago

it is not the pub key that must be protected, is the private one

▲ 4 Reply ⋮



[bashan](#) Over a year ago

The private key has to be protected.

▲ 0 Reply ⋮



[naveenKumar](#) Over a year ago

It works for me. I think `chmod 400 ~/.ssh/id_rsa` this is what you meant @Anirban. As stated above: **The file with the ".pub" extension is the public key file. The corresponding file without the ".pub" extension is the private key file.** We need to protect private one.

▲ 0 Reply ⋮



[Anirban](#) Over a year ago

Edited the answer. It should be the private key.

▲ 0 Reply ⋮

|



You have to run the command bellow

10

```
chmod 400 /path/to/my/key.pem
```



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answered Mar 27, 2021 at 20:28



[Majdi Chebil](#)

323 ● 3 ● 8



Comments

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This problem had a quick and easy fix. You just had to change the permissions on the pem file using the following command.

8

```
chmod 400 /Users/yourUserName/pathOfYourFile/fileName.pem
```



This command will make the file read only and remove all other permissions on the file



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answered Nov 29, 2022 at 8:04



[user3040433](#)

115 ● 2 ● 4



Comments

Add a comment



As for me, the default mode of `id_rsa` is `600`, which means `readable` and `writable`.

7

After I push this file to a git repo and pull it from another pc, sometimes the mode of the private key file becomes `-rw-r--r--`.



When I pull the repo with ssh after specify the private key file, it failed and prompted warnings the same with you. Following is my script.



```
ssh-agent bash -c "ssh-add $PATH_OF_RSA/id_rsa; \  
git pull git@gitee.com:someone/somerepo.git "
```

I fix this problem just by changing the mode to `600`.

```
chmod 600 $PATH_TO_RSA/id_rsa
```

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answered Aug 23, 2018 at 7:47



[W.Perrin](#)

4,785 ● 36 ● 31

Comments

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giving permission 400 makes the key private and not accessible by someone unknown. It makes the key as a protected one.

6

```
chmod 400 /Users/tudouya/.ssh/vm/vm_id_rsa.pub
```



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answered Dec 17, 2018 at 4:41



Himanshi Singh

71 ● 1 ● 1

Comments

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If youre using a .ssh/config file try to

5

```
chmod 0400 .ssh/config
```



then:



```
chmod 0400 .ssh/<<KEYFILE_PATH>>
```



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answered Jul 6, 2018 at 14:47



Shell_Leko

552 ● 9 ● 13

Comments

Add a comment



Just run below to your pem's

5

```
sudo chmod 600 /path/to/my/key.pem
```



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answered Jun 23, 2019 at 22:56



Pravin Bansal

4,729 ● 1 ● 33 ● 20

Comments

Add a comment



This should do the trick:

5

```
chmod 600 id_rsa
```



Share Improve this answer Follow

answered May 24, 2021 at 11:45



As33

107 ● 1 ● 4



1 Comment ▼

Add a comment



xxyjoel Over a year ago

request to call `chmod 600 blah` is not descriptive enough; as noted in an earlier comment, you need to run this command *in the location where the key is stored*

▲ 0

Reply



I had this issue with a macbook m1, I later realized that i was missing `sudo` from the connection script

5

```
sudo ssh -i "key.pem" ubuntu@IP_Address
```



Ensure you are not missing the `sudo` in your connection script if you are using a macbook.



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edited Jun 4, 2022 at 8:32

answered Jun 4, 2022 at 8:31



gagofure

83 ● 2 ● 9

Comments

Add a comment



`chmod 400 /etc/ssh/*` works for me.

3

Share Improve this answer Follow

edited Mar 4, 2017 at 14:57

answered Jan 12, 2017 at 15:03



Floern

34k ● 24 ● 106 ● 122



Michal Sipek

494 ● 1 ● 6 ● 25



1 Comment ▼

Add a comment



J2N Over a year ago

You can do this so long as you realize you're affecting all keys in the directory.

▲ 3 Reply ...



Those who suggested `chmod 400 id_rsa.pub` did not sound right at all. It was quite possible that `op` used `pub` key **instead of** private key to `ssh`.

3



So it might be as simple as `ssh -i /Users/tudouya/.ssh/vm/vm_id_rsa` (the private key) `user@host` to fix it.



--- update ---



Check this article <https://www.digitalocean.com/community/tutorials/how-to-set-up-ssh-keys--2> for how to set up ssh key

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edited Jan 3, 2019 at 1:55

answered Nov 2, 2017 at 11:15



Qiulang

12.8k ● 22 ● 99 ● 158

1 Comment ▾

Add a comment



J2N Over a year ago

Could be, although in my case when I searched for this issue and got to the answer the `chmod 400` was what I needed to solve my problem. Thanks to all who helped!

▲ 0 Reply ...



I was trying to use my public key as *private* key for connecting to Gitlab. That was a rookie mistake!

1



This was my `~/.ssh/config` entry:



```
Host gitlab.com
  Hostname gitlab.com
  PreferredAuthentications publickey
  IdentityFile ~/.ssh/id_ed25519.pub
  ^^^^^^^^^^^^^^^^^^ this is a public key
```

`id_ed25519.pub` is a public key and it is readable, that's okay since it's a *public* key. In fact all the permissions on my private and public keys were alright:

```
-rw----- 1 user  staff  464 Dec 10  2023 id_ed25519
-rw-r--r-- 1 user  staff  108 Dec 10  2023 id_ed25519.pub
-rw----- 1 user  staff 1766 Aug 16  2023 id_rsa
```

```
-rw-r--r--  1 user  staff   381 Sep 19  2023 id_rsa.pub
-rw-----  1 user  staff  2655 Mar  3  2022 id_rsa2
-rw-r--r--  1 user  staff   566 Mar  3  2022 id_rsa2.pub
```

Problem was solved by setting `IdentityFile` to my private key (only readable by me!) in

`~/.ssh/config`:

```
IdentityFile ~/.ssh/id_ed25519
            ^^^^^^^^^^^^^ this is a private key
```

And actually it sometimes helps to read error messages, here it literally says that the file `/Users/tudouya/.ssh/vm/vm_id_rsa.pub` is being taken as private key file:

Permissions 0644 for '/Users/tudouya/.ssh/vm/vm_id_rsa.pub' are too open. It is required that your private key files are NOT accessible by others.

Share Improve this answer Follow

answered Aug 5, 2024 at 19:41



[user2314737](#)

29.7k ● 20 ● 109 ● 126

Comments

Add a comment



There has been a lot of great explanation above, so I recommend reading and understanding.

-1

Here is my simple step by step solution:

1. On your terminal, run: `open ~/.ssh/config`
2. In your file, you will see something similar to this (in my personal case):

```
Host *
  IgnoreUnknown UseKeychain
  AddKeysToAgent yes
  IdentityFile ~/.ssh/id_ed25519.pub
```

or like this (as per the example in this question).

```
Hostname 10.211.55.17
  PreferredAuthentications publickey
  IdentityFile /Users/tudouya/.ssh/vm/vm_id_rsa.pub
```

3. Remove the ".pub" extension from the last line, which should look like:

```
Hostname 10.211.55.17
PreferredAuthentications publickey
IdentityFile /Users/tudouya/.ssh/vm/vm_id_rsa
```

or in my case:

```
Host *
IgnoreUnknown UseKeychain
AddKeysToAgent yes
IdentityFile ~/.ssh/id_ed25519
```

4. Save the file and test your ssh connection.

Share Improve this answer Follow

answered Mar 7, 2022 at 22:12



Pablo Motta
73 ● 1 ● 5

Comments



i had similar issues and this was what i did and it worked.

-2

sudo ssh -i webhost.pem ubuntu@ipaddress



Share Improve this answer Follow

answered Dec 6, 2022 at 11:50



Faithful Ahamefule
1



1 Comment ▼



Eric Aya Over a year ago

This is the same solution as in [this other answer](#).

1 Reply



I removed the `.pub file`, and it worked.

-12

Share Improve this answer Follow

edited May 9, 2016 at 4:20

answered Jan 12, 2016 at 6:05



Box Box Box Box
5,398 ● 10 ● 52 ● 71



user2942483
7



2 Comments ▼

Add a comment



Henry Over a year ago

Removing the .pub file is not necessary. It will also mean you don't have a record of the public key on your machine for later use.

▲ 1 Reply ⋮



dannysauer Over a year ago

If you have OpenSSH, you can regenerate the missing public key file from the private key by using `ssh-keygen -i -f /path/to/private.key > /desired/path/to/public.key`. So, it's not really lost. :)

▲ 1 Reply ⋮



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