[Chris Jean](#)
WordPress developer for [Automattic](#), Linux fan, and all-around nerd

Fix apt-get update "the following signatures couldn't be verified because the public key is not available"

There are times when running `apt-get update` in Ubuntu will result in error messages such as the following:

```
[chris@server ~]$ sudo apt-get update
Ign http://security.ubuntu.com trusty-security InRelease
Get:1 http://security.ubuntu.com trusty-security Release.gpg [933 B]
...
Fetched 21.9 MB in 14s (1,537 kB/s)
Reading package lists... Done
W: GPG error: http://security.ubuntu.com trusty-security Release: The following signatures couldn't be verified because the public key is not available: NO_PUBKEY 40976EAF437D05B5 NO_PUBKEY 3B4FE6ACC0B21F32
W: GPG error: http://archive.canonical.com trusty Release: The following signatures couldn't be verified because the public key is not available: NO_PUBKEY 40976EAF437D05B5 NO_PUBKEY 3B4FE6ACC0B21F32
W: GPG error: http://archive.ubuntu.com trusty Release: The following signatures couldn't be verified because the public key is not available: NO_PUBKEY 40976EAF437D05B5 NO_PUBKEY 3B4FE6ACC0B21F32
W: GPG error: http://archive.ubuntu.com trusty-updates Release: The following signatures couldn't be verified because the public key is not available: NO_PUBKEY 40976EAF437D05B5 NO_PUBKEY 3B4FE6ACC0B21F32
[chris@server ~]$
```

If these errors aren't fixed, apt will have problems when installing or upgrading packages. For example:

```
[chris@server ~]$ sudo apt-get upgrade
Reading package lists... Done
Building dependency tree... Done
Calculating upgrade... Done
...
E: Some packages could not be authenticated
[chris@server ~]$
```

The apt packaging system has a set of trusted keys that determine whether a package can be authenticated and therefore trusted to be installed on the system. Sometimes the system does not have all the keys it needs and runs into this issue. Fortunately, there is a quick fix. Each key that is listed as missing needs to be added to the apt key manager so that it can authenticate the packages.

Looking at the error above, apt is telling us that the following keys are missing: `40976EAF437D05B5` and `3B4FE6ACC0B21F32`. Notice that these are listed multiple times. Each unique key will only need to be added once.

To add these keys, run the following commands:

```
[chris@server ~]$ sudo apt-key adv --keyserver keyserver.ubuntu.com --recv-keys 40976EAF437D05B5
Executing: gpg --ignore-time-conflict --no-options --no-default-keyring --homedir /tmp/tmp.QTeppiINUh --no-auto-check-trustdb --trust-model always --keyring /etc/apt/trusted.gpg --primary-keyring /etc/apt/trusted.gpg --keyserver keyserver.ubuntu.com --recv-keys 40976EAF437D05B5
gpg: requesting key 437D05B5 from hkp server keyserver.ubuntu.com
gpg: key 437D05B5: public key "Ubuntu Archive Automatic Signing Key " imported
gpg: Total number processed: 1
gpg:               imported: 1
[chris@server ~]$ sudo apt-key adv --keyserver keyserver.ubuntu.com --recv-keys 3B4FE6ACC0B21F32
Executing: gpg --ignore-time-conflict --no-options --no-default-keyring --homedir /tmp/tmp.77TqYGKU7b --no-auto-check-trustdb --trust-model always --keyring /etc/apt/trusted.gpg --primary-keyring /etc/apt/trusted.gpg --keyserver keyserver.ubuntu.com --recv-keys 3B4FE6ACC0B21F32
gpg: requesting key C0B21F32 from hkp server keyserver.ubuntu.com
gpg: key C0B21F32: public key "Ubuntu Archive Automatic Signing Key (2012) " imported
gpg: Total number processed: 1
gpg:               imported: 1  (RSA: 1)
[chris@server ~]$
```

If the keys that your system is missing differs, simply replace the key at the end of the above command with your key and run it.

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Categories : [Linux](#)

Comments

1. **kemploe** says:
   [April 14, 2015 at 9:35 am](#)

   this solved my problem

   thank you !

   [Reply](#)

   - **Hudson** says:
     [June 27, 2020 at 4:16 pm](#)

     This solved my nagging troubles. Thanks a bunch

     [Reply](#)

   - **Kenan** says:
     [July 25, 2020 at 6:16 am](#)

     Hi!

     Worked for me too:)

     [Reply](#)

2. **Meir Shani** says:
   [April 23, 2015 at 3:49 pm](#)

   I'm sorry, did not work for me:

   ...
   W: GPG error: [http://download.opensuse.org](#) Release: The following signatures couldn't be verified because the public key is not available: NO_PUBKEY 0429ACCAF7AA50B3
   ~/ #

   I tried the solution and it failed:

   ~/ # sudo apt-key adv –keyserver keyserver.ubuntu.com –recv-keys 0429ACCAF7AA50B3
   Executing: gpg –ignore-time-conflict –no-options –no-default-keyring –secret-keyring /tmp/tmp.Nd5sw1reOg –trustdb-name /etc/apt/trustdb.gpg –keyring /etc/apt/trusted.gpg –primary-keyring /etc/apt/trusted.gpg –keyserver keyserver.ubuntu.com –recv-keys 0429ACCAF7AA50B3
   gpg: requesting key F7AA50B3 from hkp server keyserver.ubuntu.com
   gpgkeys: key 0429ACCAF7AA50B3 not found on keyserver
   gpg: no valid OpenPGP data found.
   gpg: Total number processed: 0
   ~/ #

   [Reply](#)

   - **Chris Jean** says:
     [April 23, 2015 at 5:36 pm](#)

     It looks like openSUSE doesn't maintain keys on the Ubuntu keyserver. You'll have to manually download the appropriate key and add it to your system using `add-key`. You can find an example [here](#).

     [Reply](#)

     - **Natan Labarrère** says:
       [July 5, 2020 at 6:43 pm](#)

       This worked! Thank you very much.

       [Reply](#)

3. **Paulo Souza** says:
   [July 1, 2015 at 9:04 pm](#)

   really really really really thanks!

   [Reply](#)

4. **Mark** says:
   [September 12, 2015 at 11:57 am](#)

   Thanks – worked for me a treat!

   [Reply](#)

5. **lory** says:
   [November 18, 2015 at 11:48 am](#)

   Grazie mille from Italy! (thank you so much!)

   [Reply](#)

6. **Howy** says:
   [December 1, 2015 at 1:09 am](#)

   Many thanks!

   [Reply](#)

7. **Wally** says:
   [December 8, 2015 at 4:49 pm](#)

thanks man!

Reply

8. **William** says:
   December 13, 2015 at 3:51 pm

   Thank you for this info. Could not find the proper command to install the missing public key until this website.

   Reply

9. **darkki** says:
   December 28, 2015 at 1:21 am

   Thanks works great!!!

   Reply

10. **MohamedRamadan** says:
    January 26, 2016 at 8:17 am

    This is awesome … thank you
    NOTE : Every one change the key with the key the error carry .. GOOD LUCK 🙂

    Reply

11. **krst0** says:
    March 3, 2016 at 7:44 am

    As others said – awesome!
    So easy, just need to replace keys. I´ll bookmark this page. 😉
    Thank you very much. Regards, krst0

    Reply

12. **Freddy** says:
    March 18, 2016 at 2:25 am

    Thank you for your helpful post. It solved my problem. Really.

    Reply

13. **KangDeb** says:
    April 1, 2016 at 1:13 pm

    its work, thanks 🙂

    Reply

14. **Linux Mint: Moving the /home Folder to a Separate /home Partition | Ray Woodcock's Latest** says:
    April 25, 2016 at 9:24 pm

    […] couldn't be verified because the public key is not available." A search led to instructions to run this […]

    Reply

15. **Adam** says:
    May 3, 2016 at 7:23 am

    Thanks! I've had that error hanging around for ever.

    Reply

16. **wow** says:
    June 9, 2016 at 4:16 am

    tnx dude

    Reply

17. **Kingsley** says:
   June 12, 2016 at 11:06 am

    Hello;

    Thanks for this, it was helpful

    Reply

18. **Dockerizing WordPress in a multi-container architecture | Knowledge Base** says:
    June 20, 2016 at 9:25 am

    […] Apt-key commands https://chrisjean.com/fix-apt-get-update-the-following-signatures-couldnt-be-verified-because-the-pu… […]

    Reply

19. **Suici Doga** says:
    June 23, 2016 at 8:24 am

    I had to run the following commands before this worked.

    sudo mv /etc/apt/trusted.gpg.d/ /etc/apt/trusted.gpg.d.backup
    sudo mkdir /etc/apt/trusted.gpg.d
    sudo chmod 755 /etc/apt/trusted.gpg.d

    Then run sudo apt-get update . You will see more key errors, add all the keys you see

    Reply

    ○ **Chris Jean** says:
      July 5, 2016 at 12:06 pm

      Looks like you ran into the "keyblock resource" bug and followed the solution documented here. I'm making note of that resource in case others see your comment and want to know more.

      Reply

20. **Johnny G** says:
    July 4, 2016 at 4:34 pm

    The gift that keeps on giving…

    This site post has helped me now on two separate occasions so I'd like to pass on my heartfelt thanks.
    I've used the info to help me sort out the nightmare of removing the dreaded/awful systemd from my systems.

    Cheers.

    Reply

21. **Pablo** says:
    September 20, 2016 at 9:40 am

    Thank youuuuuuu

    Reply

22. **c.w.** says:
    September 29, 2016 at 4:09 am

    Thank you so much. Appreciate your help.

    Reply

23. **john** says:
    October 14, 2016 at 3:50 pm

    Worked a treat, many thanks

    Reply

24. **Pranita** says:
    October 18, 2016 at 12:35 am

    Thank you so much, it worked for me 🙂

    Reply

25. **Chris** says:
    January 9, 2020 at 7:57 am

    freakin' WORKED, thank you

    Reply

26. **Hellan Rodrigues da Silva** says:
January 10, 2020 at 3:14 pm

Thank's! This solve my problem.

Reply

27. **Fabiano Vasconcelos** says:
January 16, 2020 at 1:33 pm

Thank you so much! It solved my problem!

Reply

28. **Nemanja Vukosav** says:
February 15, 2020 at 4:47 pm

thanks for help! 🙂

Reply

29. **Wayne** says:
February 22, 2020 at 10:21 am

Thanks! Worked perfectly 🙂

Reply

30. **Candra Setiawan** says:
February 27, 2020 at 7:25 am

Thanks a lot

Reply

31. **yashica patodia** says:
February 27, 2020 at 9:02 am

sorrry!but it didnt work for me.
$ sudo apt-key adv –keyserver keyserver.ubuntu.com –recv-keys EB3E94ADBE1229CF
Executing: /tmp/apt-key-gpghome.ekSEO9yMc8/gpg.1.sh –keyserver keyserver.ubuntu.com –recv-keys EB3E94ADBE1229CF
gpg: keyserver receive failed: Connection timed out

it shows this error !
what should i do

Reply

- **Chris Jean** says:
February 27, 2020 at 10:09 am

Looks like your system is having problems contacting `keyserver.ubuntu.com`. This might be a temporary issue with that server which means that you should try again at a later time to see if the problem resolves itself. If the issue persists, it's possible that the request is being blocked by a firewall (either on your system, on the network this system runs in, or possibly on the network for `keyserver.ubuntu.com`).

You can also try different servers and being more explicit with the format of the server, such as:

```
[chris@server ~]$ sudo apt-key adv --keyserver hkp://keys.gnupg.net:80 --recv-keys EB3E94ADBE1229CF
```

Alternate servers to try are:

- `hkp://keys.gnupg.net:80`
- `hkp://pgp.mit.edu:80`
- `hkp://sks-keyservers.net:80`
- `hkp://keyserver.pgp.com:80`

Reply

- **Nicolas** says:
August 11, 2020 at 4:48 pm

Thanks for the solution…it worked for all my missing keys but one.

I have check (sudo apt-key adv –keyserver keyserver.ubuntu.com –recv-keys 9B36C042D8190918) all the alternate servers you suggested

hkp://keys.gnupg.net:80
hkp://pgp.mit.edu:80
hkp://sks-keyservers.net:80
hkp://keyserver.pgp.com:80

but I keep getting the 'gpg: keyserver receive failed: No data'…I do not get why it worked with the other keys but this one…

Nicolas

Reply

- **Chris Jean** says:
August 12, 2020 at 11:02 am

Does the solution listed here work?

Reply

32. **Faiz Lotfy** says:
March 1, 2020 at 3:06 pm

This solved my problem. Thank you.

Reply

33. **Fixi Hard** says:
May 15, 2020 at 11:22 am

Helped a lot. Thank you!

Reply

34. **Rais Iqbal** says:
May 18, 2020 at 4:52 am

Thank you, sir
It solved my issue

Reply

35. **Rohan** says:
May 19, 2020 at 5:56 am

Dude, you are very much thanked for uploading this solution…you are a gem!! Thanks a lot,… love this website

Reply

36. **jyoti** says:
May 20, 2020 at 9:38 am

it worked . Thanks

Reply

37. **Pandy** says:
May 28, 2020 at 9:27 pm

¡Muchas gracias! Me ha servido mucho, creí que tendría que formatear mi PC por cuarta vez. Gracias.

Reply

38. **Akanksha Sachan** says:
May 31, 2020 at 11:56 am

It helped, thanks! :))

Reply

39. **Khalid Benjelloun** says:
May 31, 2020 at 12:36 pm

Thank you!

Reply

40. **Pedro Acuña** says:

June 7, 2020 at 2:50 am

Muchas gracias ¡¡ Despues de 2 días de buscar tener el error. Lo corregí ¡¡

Reply

41. **OC** says:
June 10, 2020 at 8:56 am

Thank you!!!

Reply

42. **Roger Monteiro** says:
June 11, 2020 at 7:30 am

This was useful, thanks 🙂

Reply

43. **varonwy** says:
June 23, 2020 at 6:24 pm

Still works. Thanks.

Reply

44. **Cleverson** says:
July 8, 2020 at 5:55 pm

Great! Thank you!

Reply

45. **Leo** says:
August 6, 2020 at 2:45 am

thanks a lot !!

Reply

46. **LE HOANG TAM** says:
August 6, 2020 at 9:10 pm

Thanks!
Saved my time 🙂

Reply

47. **Andy** says:
August 13, 2020 at 9:15 am

Thank you! Solved the issue for me (my Jenkins wasn't updating).

Reply

48. **Kaustubh Shivdikar** says:
August 19, 2020 at 1:14 am

FINALLY!!!! A solution that solved that problem for ever!!!!

Reply

49. **Robott** says:
August 20, 2020 at 8:33 am

Thank you!

Reply

50. **Nitish** says:
September 2, 2020 at 5:23 am

Thank you! I wanted to upgrade from Ubuntu 18.04 to 20.04 but due to broken update I was not able to. It fixed my problem..

Reply

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