

# How do I get git to default to ssh and not https for new repositories

Asked 10 years ago   Modified 3 months ago   Viewed 300k times



These days when I create a new repository on GitHub on the setup page I get:

302

```
git remote add origin https://github.com/nikhilbhardwaj/abc.git
git push -u origin master
```



And whenever I have to push a commit I need to enter my GitHub username and password.



124

I can manually change that to



```
git@github.com:nikhilbhardwaj/abc.git
```

in the `.git/config`. I find this quite irritating - **is there some way I can configure git to use SSH by default?**

[git](#) [github](#) [ssh](#)

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edited Jun 4, 2014 at 23:45

asked Jun 26, 2012 at 3:00



[corazza](#)

30.1k

35

108

182



[nikhil](#)

8,389

21

60

102

I think @MoOx's answer is probably most consistent with what you are seeking. The `insteadOf` trick has been around since at least 2012. Also see [How to convert git: urls to http: urls.](#) – [jww](#) Nov 16, 2017 at 21:02

8 Answers

Sorted by:

Trending sort available ⓘ

Highest score (default)



**Set up a repository's origin branch to be SSH**

409



The GitHub repository setup page is just a suggested list of commands (and GitHub now suggests using the HTTPS protocol). Unless you have administrative access to GitHub's site, I don't know of any way to change their suggested commands.



If you'd rather use the SSH protocol, simply add a remote branch like so (i.e. use this command *in place* of GitHub's suggested command). To modify an existing branch, see the next section.



```
$ git remote add origin git@github.com:nikhilbhardwaj/abc.git
```

## Modify a pre-existing repository

As you already know, to switch a pre-existing repository to SSH instead of HTTPS, you can change the remote url within your



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to SSH instead of HTTPS, you can

```
[remote "origin"]
  fetch = +refs/heads/*:refs/remotes/origin/*
  -url = https://github.com:nikhilbhardwaj/abc.git
  +url = git@github.com:nikhilbhardwaj/abc.git
```

A shortcut is to use the `set-url` command:

```
$ git remote set-url origin git@github.com:nikhilbhardwaj/abc.git
```

## More information about the SSH-HTTPS switch

- ["Why is Git always asking for my password?"](#) - GitHub help page.
- [GitHub's switch to Smart HTTP](#) - relevant StackOverflow question
- [Credential Caching for Wrist-Friendly Git Usage](#) - GitHub blog post about HTTPS, and how to avoid re-entering your password

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edited May 23, 2017 at 12:26

answered Jun 26, 2012 at 5:19



Community Bot  
1 1



David Cain  
15.4k 11 66 73

Thanks, I didn't know about them making smart https the default. – [nikhil](#) Jun 26, 2012 at 9:29

- 8 This may be good for Windows users, but on Linux it was quite a step backwards: ssh always worked, and the new password caching for Smart HTTPS works only on Windows. There's a note on *"Where's the Mac version?"* but not a **single** word for linux users. – [MestreLion](#) Sep 14, 2012 at 13:13

I should add that, this method does not interfere with github's mac client at all. Change it and you can both use command line and gui version(github's client) of git without a problem. – [Kemal Dağ](#) Oct 11, 2013 at 8:39

- 1 Now that GitHub is deprecating password access ([see here](#)), it seems like this answer needs to be part of their official documentation somewhere. Is it already there? – [Matt Moehr](#) Jan 29, 2021 at 20:21



282

- GitHub

```
git config --global url.ssh://git@github.com/.insteadOf https://github.com/
```

▼

- BitBucket



```
git config --global url.ssh://git@bitbucket.org/.insteadOf https://bitbucket.org/
```

That tells git to always use SSH instead of HTTPS when connecting to GitHub/BitBucket, so you'll authenticate by certificate by default, instead of being prompted for a password.

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edited Jul 14, 2014 at 21:57

answered Feb 25, 2014 at 22:36



[corazza](#)

30.1k

35

108

182



[Trevor Austin](#)

2,845

1

10

3

- 
- 4 If anyone wants to look this up in [the documentation](#), search for `url.<base>.insteadOf` . – user456814 Jun 18, 2014 at 15:39
- 
- 3 be wary this seems to break some things -- I've noticed some functionality of homebrew stopped working after I made this change (namely installing non-default versions / branches) – [tdc](#) Oct 23, 2015 at 20:45
- 
- 1 For gitlab: `git config --global url.ssh://git@gitlab.com/.insteadOf` [gitlab.com](#) – [MoOx](#) Apr 8, 2016 at 13:23
- 
- 2 I *think* that it should be `git config --global url.ssh://git@github.com:.insteadOf` [github.com](#), because github likes `git@github.com:<USERNAME>/<REPO>.git`. (EDIT `git config --global url.git@github.com:.insteadOf https://github.com/` works in git 2.7.4 for sure.) – [Glen Keane](#) Jun 22, 2016 at 11:51
- 
- 2 Since a comment here mentioned homebrew problems it might be a good idea to remove `--global` and do this on a pr repo basis. – [Pylinux](#) Jun 27, 2017 at 11:02
- 



96

The [response provided by Trevor is correct](#).

But here is what you can directly add in your `.gitconfig`:



```
# Enforce SSH
[url "ssh://git@github.com/"]
  insteadOf = https://github.com/
[url "ssh://git@gitlab.com/"]
  insteadOf = https://gitlab.com/
[url "ssh://git@bitbucket.org/"]
  insteadOf = https://bitbucket.org/
```

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edited May 23, 2017 at 11:33

answered Apr 8, 2016 at 13:27



Community Bot

1 1



[MoOx](#)

7,493

4

35

35


- 
- 3 Much simpler +1 – [PiersyP](#) Mar 28, 2017 at 16:12
- 

+1 for this trick. It is also recommended by the kernel folks. Also see [git pull](#) on the kernel newbies mailing list. – [jvw](#) Nov 16, 2017 at 20:52

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much cleaner solution - and great for *go*lang projects where "go get" defaults to https and one want to

individually set urls to ssh instead e.g. for private repos etc. – [colm.anseo](#) May 27, 2018 at 1:23 

- 1 For Gitlab: [url "ssh://git@gitlab.com/"] insteadOf = https://gitlab.com/ There is also pushInsteadOf if you want to affect push URL but not fetch. Can use `git remote -v` to inspect effective URLs git is going to use. – [Beni Cherniavsky-Paskin](#) Jun 10, 2018 at 8:46 

This doesn't work, at least for existing repositories. – [Andrew Koster](#) Sep 4, 2019 at 17:11



You need to clone in ssh not in https.

7

```
$ ssh-keygen -t ed25519 -C "your_email@example.com"
```



Add content of `~/.ssh/id_rsa.pub` to your ssh keys on github.com.



If you need to have separate keys for different hosts, you can use this script:

```
#!/usr/bin/env bash

if [ $# -lt 2 ]; then
    echo "Provide email and hostname"
    exit 1
fi

email="$1"
hostname="$2"
keypath="$HOME/.ssh/${hostname}_rsa"
ssh-keygen -t ed25519 -C $email -f $keypath

if [ ! $? -eq 0 ]; then
    echo "Error when running ssh-keygen"
    exit 1
fi

exit 0
cat >> $HOME/.ssh/config <<EOF
Host $hostname
    Hostname $hostname *. $hostname
    User git
    IdentitiesOnly yes
    IdentityFile $keypath
EOF
```

and run it like

```
bash generate_ssh.sh your_email@example.com github.com
```

Change your remote url

```
git remote set-url origin git@github.com:user/foo.git
```

(or just edit `.git/config`)

Add content of `~/.ssh/github.com_rsa.pub` to your ssh keys on github.com

Check connection

```
ssh -T git@github.com
```

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edited Mar 30 at 22:48

answered Apr 4, 2014 at 16:08



[rofrol](#)

13.3k

7

73

68

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This was handy for me except I had to change `Hostname $hostname *. $hostname` to `Hostname $hostname` for it to work. – [silleknarf](#) Mar 8 at 20:11

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4

You may have accidentally cloned the repository in https instead of ssh. I've made this mistake numerous times on github. Make sure that you copy the ssh link in the first place when cloning, instead of the https link.



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edited Oct 23, 2018 at 3:48

answered Jan 26, 2015 at 21:42



[Mike Lyons](#)

1,716

2

20

33

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Need to clone a new one with the ssh link – [codenamezero](#) Dec 3, 2018 at 18:14

---

1 You can also change the repo link from HTTP to SSH, see the other answers. – [Mike Lyons](#) Sep 30, 2019 at 17:11

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2

SSH File

```
~/.ssh/config file
Host *
    StrictHostKeyChecking no
    UserKnownHostsFile=/dev/null
    LogLevel QUIET
    ConnectTimeout=10
Host github.com
    User git
    AddKeystoAgent yes
    UseKeychain yes
    Identityfile ~/.github_rsa
```

Edit reponame/.git/config

```
[remote "origin"]  
url = git@github.com:username/repo.git
```

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answered Oct 15, 2019 at 15:10

[bhargav joshi](#)

59 3



FYI - I'm using this due to github no longer allowing ssh:

1

```
[url "git@github.com:"]  
insteadOf = https://github.com/  
[url "git@gist.github.com:"]  
insteadOf = https://gist.github.com/
```



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answered Nov 9, 2021 at 23:28

[Devin Rhode](#)

21.1k 6 51 67

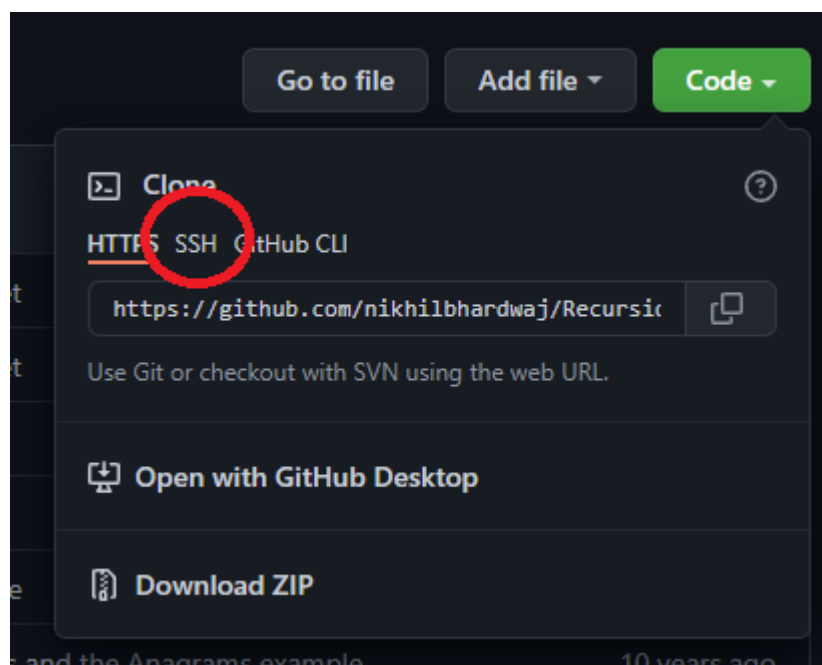


While the other answers here directly answer the titular question (in a way that I didn't know was possible! TIL something new about `git` !) about automatically turning `https` based remotes into `git+ssh` ones, the "normal" way to do this "right" from the start is to not give `git` the `https` url.

0



GitHub (along with other popular git hosting services) always has a little button that lets you get the URL that `git` should clone. You just need to click the small "SSH" button:



Alternatively for a new project

**Quick setup — if you've done this kind of thing before**

Set up in Desktop

 or 

HTTPS

SSH

https://github.com/cinderblock/test.git

Get started by creating a new file or uploading an existing file. We recommend every repository include a README, LICENSE, and .gitignore.

**...or create a new repository on the command line**

```
echo "# test" >> README.md
git init
git add README.md
git commit -m "first commit"
git branch -M main
git remote add origin https://github.com/cinderblock/test.git
git push -u origin main
```

**...or push an existing repository from the command line**

```
git remote add origin https://github.com/cinderblock/test.git
git branch -M main
git push -u origin main
```

**...or import code from another repository**

You can initialize this repository with code from a Subversion, Mercurial, or TFS project.

Import code

Once you select the "SSH" option, GitHub (and others) will remember (as long as you're logged in) and make it the default in the future.

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edited Jan 6 at 20:11

answered Sep 24, 2021 at 19:44



**Cameron Tacklind**

**3,714** 31 35