

- Questions (<https://www.linode.com/community/questions>)
- Guides & Tutorials (<https://www.linode.com/docs/>)
- StackScripts (<https://www.linode.com/stackscripts>)
- GitHub (<https://github.com/linode>)
- Events (<https://www.linode.com/events>)

- Guides & Tutorials (<https://www.linode.com/docs/>)
- » IPs, Networking & Domains (<https://www.linode.com/docs/networking/>)
  - » SSH: Connect to Your Linode (<https://www.linode.com/docs/networking/ssh/>)
  - » SSH Connections Using PuTTY on Windows

# SSH Connections Using PuTTY on Windows

Updated Monday, August 20, 2018 by Linode

Written by Linode

Use promo code **DOCS10** for \$10 credit on a new account.



## Contribute on GitHub

Report an Issue (<https://github.com/linode/docs/issues/new?title=SSH%20Connections%20Using%20PuTTY%20on%20Windows%20Proposed%20Changes&body=Link%3A+https%3A%2F%2Flinode.com%2Fdocs%2Fnetworking%2Fssh%2Fssh-connections-using-putty-on-windows%2F%0A%23%23%20Issue%0A%0A%23%23%20Suggested%20Fix%0A&labels=inaccurate+guide>) | View File (<https://github.com/linode/docs/blob/master/docs/networking/ssh/ssh-connections-using-putty-on-windows/index.md>) | Edit File (<https://github.com/linode/docs/edit/develop/docs/networking/ssh/ssh-connections-using-putty-on-windows/index.md>)

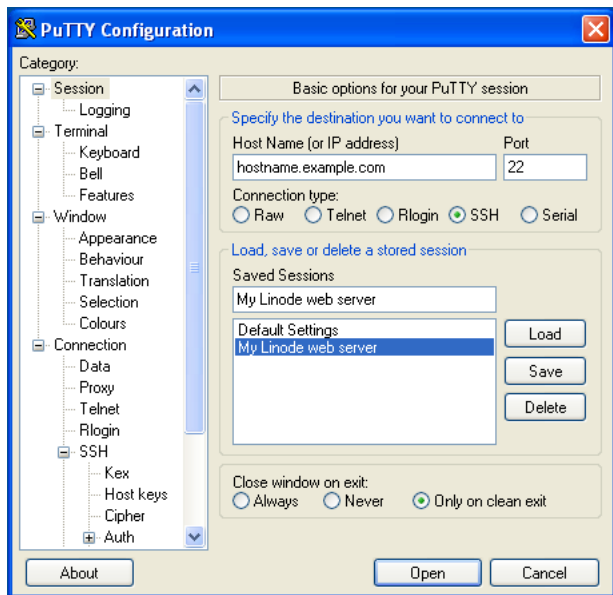


PuTTY is a free and open source SSH client for Windows and UNIX systems. It provides easy connectivity to any server running an SSH daemon, so you can work as if you were logged into a console session on the remote system.

## Install PuTTY and Connect to a Remote Host

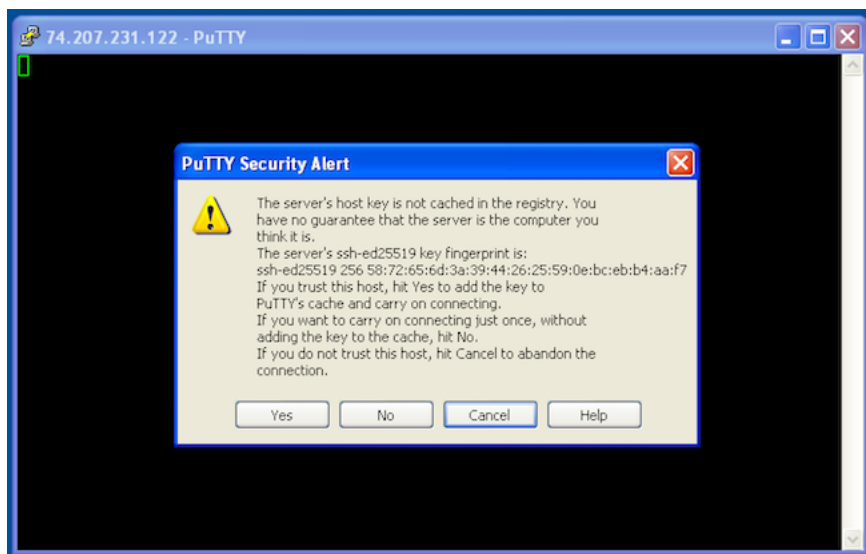
1. Download and run the PuTTY installer from here (<http://www.chiark.greenend.org.uk/~sgtatham/putty/download.html>).

2. When you open PuTTY, you'll be shown the configuration menu. Enter the hostname or IP address of your Linode. PuTTY's default TCP port is 22, the IANA ([https://en.wikipedia.org/wiki/Internet\\_Assigned\\_Numbers\\_Authority](https://en.wikipedia.org/wiki/Internet_Assigned_Numbers_Authority)) assigned port for for SSH traffic. Change it if your server is listening on a different port. Name the session in the **Saved Sessions** text bar if you choose, and click **Save**:



3. Click **Open** to start an SSH session. If you have never previously logged into this system with PuTTY, you will see a message alerting you that the server's SSH key fingerprint is new, and asking if you want to proceed.

**Do not click anything yet! Verify the fingerprint first.**



4. Use Lish (</docs/networking/using-the-linode-shell-lish/>) to log in to your Linode. Use the command below to query OpenSSH for your Linode's SSH fingerprint:

```
ssh-keygen -E md5 -lf /etc/ssh/ssh_host_ed25519_key.pub
```

The output will look similar to:

```
256 MD5:58:72:65:6d:3a:39:44:26:25:59:0e:bc:eb:b4:aa:f7 root@localhost (ED25519)
```

#### Note

For the fingerprint of an RSA key instead of elliptical curve, use: `ssh-keygen -lf /etc/ssh/ssh_host_rsa_key.pub`.

5. Compare the output from Step 4 above to what PuTTY is showing in the alert message in Step 3. **The two fingerprints should match.**
6. If the fingerprints match, then click **Yes** on the PuTTY message to connect to your Linode and cache the host fingerprint.

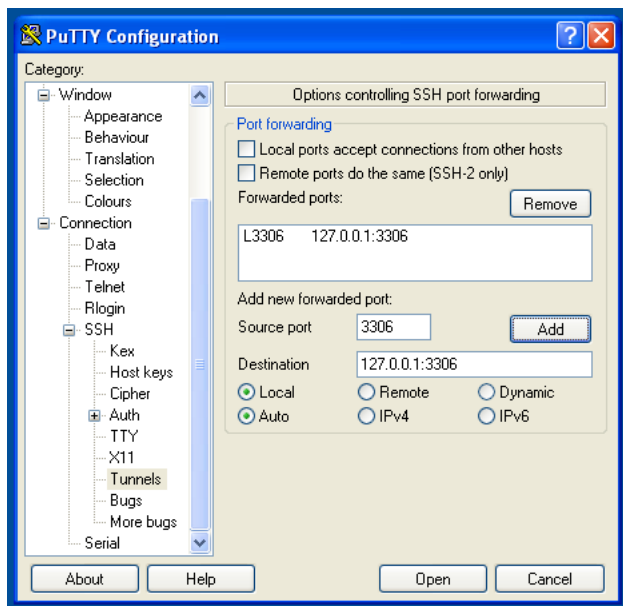
**If the fingerprints do not match, do not connect to the server!** You won't receive further warnings unless the key presented to PuTTY changes for some reason. Typically, this should only happen if you reinstall the remote server's operating system. If you receive this warning again from a system you already have the host key cached on, you should not trust the connection and investigate matters further.

## Port Forwarding (SSH Tunnels) with PuTTY

SSH tunnels allow you to access network services running on a remote server through a secure channel. This is useful in cases where the service you wish to access doesn't run over SSL, or you do not wish to allow public access to it. As an example, you can use tunneling to securely access a MySQL server running on a remote server.

To do so:

1. In PuTTY's configuration window, go to the **Connection** category.
2. Go to **SSH**, then **Tunnels**.
3. Enter `3306` in the **Source port** field.
4. Enter `127.0.0.1:3306` in the **Destination** field.
5. Click **Add**, then click **Open** to log in:



Once you've connected to the remote server with this tunnel configuration, you'll be able to direct your local MySQL client to `localhost:3306`. Your connection to the remote MySQL server will be encrypted through SSH, allowing you to access your databases without running MySQL on a public IP.

## Run Remote Graphical Applications over SSH

PuTTY can securely run graphical applications hosted on a remote Linux server. You can run virtually any X11 application in this manner, and the connection will be encrypted through SSH, providing a safe means of interacting with remote graphical systems.

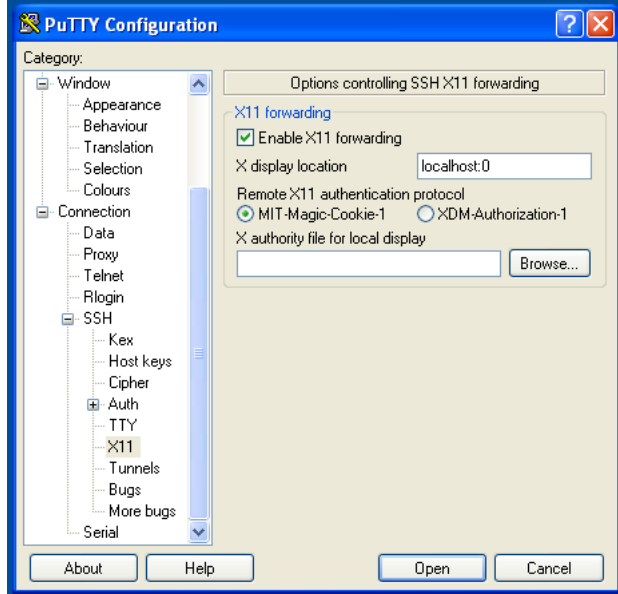
1. You will need an X11 server for Windows. Download and install Xming (<http://sourceforge.net/projects/xming/>), a free X server for Windows. Accept the defaults presented by the installer and you'll be running an X11 server when the install process completes.

### Note

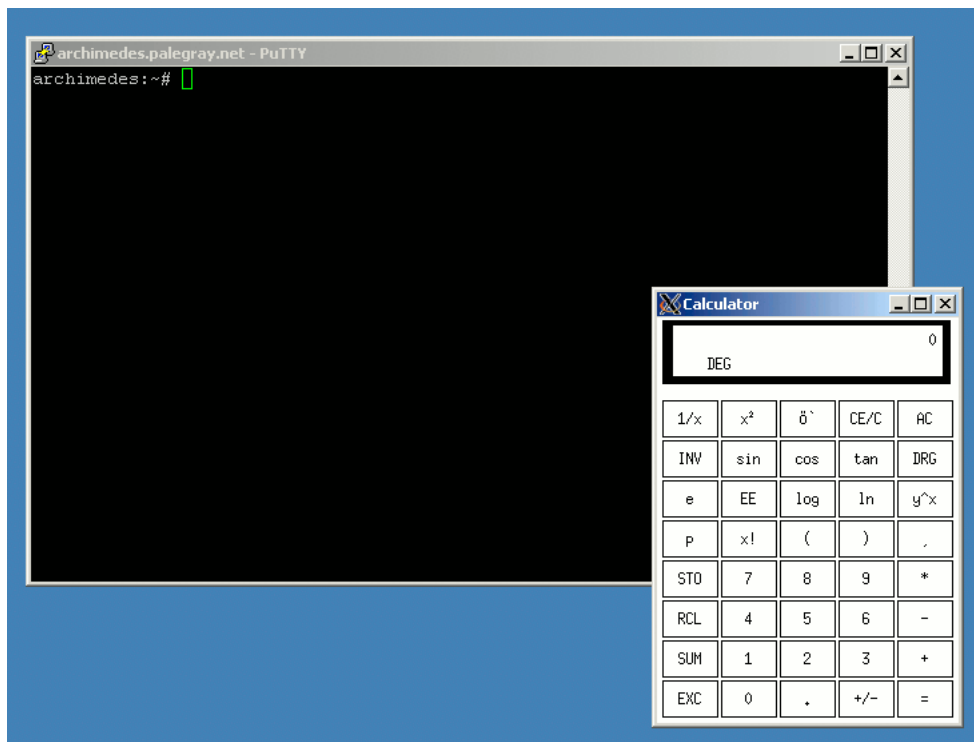
You will need the `xauth` package installed on your Linode for X11 forwarding to work correctly. It is installed by default on Debian and RedHat based systems, but may not be for other Linux distributions.

2. Tell PuTTY to forward X11 connections to your desktop:

1. In PuTTY's configuration window, make sure the remote server's hostname or IP, and the correct port, are entered on the **Session** category.
2. In the **Connection** category, go to **SSH**, then **X11**.
3. Check the box for **Enable X11 forwarding**.
4. Enter `localhost:0` in the **X display location** field.
5. Click **Open** to log in.



3. Once you're logged into the remote server, you may start any graphical application hosted there. The application will be projected onto your local desktop. Here's the `xcalc` application running on a Windows desktop from a remote server:



## More Information

You may wish to consult the following resources for additional information on this topic. While these are provided in the hope that they will be useful, please note that we cannot vouch for the accuracy or timeliness of externally hosted materials.

- PuTTY Documentation (<http://www.chiark.greenend.org.uk/~sgtatham/putty/docs.html>)
- Xming Manual (<http://www.straightrunning.com/XmingNotes/manual.php>)

## Join our Community

Find answers, ask questions, and help others. (<https://www.linode.com/community/questions/>)

comments powered by Disqus (<http://disqus.com>)

# Write for Linode.

We're always expanding our docs. If you like to help people, can write, and have expertise in a Linux or cloud infrastructure topic, learn how you can contribute (</docs/contribute>) to our library.

Get started in the Linode Cloud today.

(<https://manager.linode.com/session/signup>)

Overview (<https://www.linode.com/linodes>)

Plans & Pricing (<https://www.linode.com/pricing>)

Features (<https://www.linode.com/linodes>)

Add-Ons (<https://www.linode.com/addons>)

Managed (<https://www.linode.com/managed>)

Professional Services (<https://www.linode.com/professional-services>)

Resources (<https://www.linode.com/docs/>)

Guides & Tutorials (<https://www.linode.com/docs/>)

Speed Test (<https://www.linode.com/speedtest>)

Community (<https://www.linode.com/community>)

Chat (<https://www.linode.com/chat>)

System Status (<http://status.linode.com/>)

Company (<https://www.linode.com/about>)

About Us (<https://www.linode.com/about>)

Blog (<https://blog.linode.com>)

Press (<https://www.linode.com/press>)

Referral System (<https://www.linode.com/referrals>)

Careers (<https://www.linode.com/careers>)

Legal (</agreement>)

Customer Agreement (</agreement>)

Terms of Service (</tos>)

Privacy Policy (</privacy>)

Acceptable Use Policy (</aup>)

Contact Us (<https://www.linode.com/contact>)

855-4-LINODE (tel:+18554546633)

(855-454-6633) (tel:+18554546633)

Intl.: +1 609-380-7100 (tel:+16093807100)

Email us (<mailto:support@linode.com>)

© 2019 Linode, LLC

Security (<https://www.linode.com/security>)

Standards & Compliance (<https://www.linode.com/compliance>)