

# Install Geth and Mist on Linux

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## Geth Installation

```
sudo apt-get install software-properties-common
```

```
juilee@juilee-VirtualBox:~$ sudo apt-get install software-properties-common
[sudo] password for juilee:
Reading package lists... Done
Building dependency tree
Reading state information... Done
software-properties-common is already the newest version (0.96.24.32.12).
software-properties-common set to manually installed.
0 upgraded, 0 newly installed, 0 to remove and 15 not upgraded.
```

```
sudo add-apt-repository -y ppa:ethereum/ethereum
```

```
juilee@juilee-VirtualBox:~$ sudo add-apt-repository -y ppa:ethereum/ethereum
Hit:1 https://deb.nodesource.com/node_10.x bionic InRelease
Hit:2 http://us.archive.ubuntu.com/ubuntu bionic InRelease
Get:3 http://ppa.launchpad.net/ethereum/ethereum/ubuntu bionic InRelease [15.4 kB]
Get:4 http://security.ubuntu.com/ubuntu bionic-security InRelease [88.7 kB]
Get:5 http://us.archive.ubuntu.com/ubuntu bionic-updates InRelease [88.7 kB]
Get:6 http://us.archive.ubuntu.com/ubuntu bionic-backports InRelease [74.6 kB]
Get:7 http://us.archive.ubuntu.com/ubuntu bionic-updates/main amd64 Packages [872 kB]
Get:8 http://ppa.launchpad.net/ethereum/ethereum/ubuntu bionic/main amd64 Packages [3,448 B]
Get:9 http://security.ubuntu.com/ubuntu bionic-security/main amd64 Packages [651 kB]
Get:10 http://ppa.launchpad.net/ethereum/ethereum/ubuntu bionic/main i386 Packages [3,436 B]
Get:11 http://us.archive.ubuntu.com/ubuntu bionic-updates/main i386 Packages [651 kB]
Get:12 http://us.archive.ubuntu.com/ubuntu bionic-updates/main Translation-en [303 kB]
Get:13 http://us.archive.ubuntu.com/ubuntu bionic-updates/main amd64 DEP-11 Metadata [307 kB]
Get:14 http://ppa.launchpad.net/ethereum/ethereum/ubuntu bionic/main Translation-en [936 B]
Get:15 http://us.archive.ubuntu.com/ubuntu bionic-updates/main DEP-11 48x48 Icons [73.8 kB]
Get:16 http://us.archive.ubuntu.com/ubuntu bionic-updates/main DEP-11 64x64 Icons [140 kB]
Get:17 http://us.archive.ubuntu.com/ubuntu bionic-updates/universe amd64 Packages [11.4 kB]
```

```
Get:33 http://security.ubuntu.com/ubuntu bionic-security/universe amd64 Packages [648 kB]
Get:34 http://security.ubuntu.com/ubuntu bionic-security/universe Translation-en [215 kB]
Get:35 http://security.ubuntu.com/ubuntu bionic-security/universe amd64 DEP-11 Metadata [42.1 kB]
Get:36 http://security.ubuntu.com/ubuntu bionic-security/universe DEP-11 64x64 Icons [116 kB]
Get:37 http://security.ubuntu.com/ubuntu bionic-security/multiverse i386 Packages [4,288 B]
Get:38 http://security.ubuntu.com/ubuntu bionic-security/multiverse amd64 Packages [6,756 B]
Get:39 http://security.ubuntu.com/ubuntu bionic-security/multiverse amd64 DEP-11 Metadata [2,464 B]
Fetched 9,033 kB in 5s (1,751 kB/s)
Reading package lists... Done
```

```
sudo apt-get update
```

```
juilee@juilee-VirtualBox:~$ sudo apt-get update
Hit:1 https://deb.nodesource.com/node_10.x bionic InRelease
Hit:2 http://us.archive.ubuntu.com/ubuntu bionic InRelease
Hit:3 http://security.ubuntu.com/ubuntu bionic-security InRelease
Hit:4 http://us.archive.ubuntu.com/ubuntu bionic-updates InRelease
Hit:5 http://ppa.launchpad.net/ethereum/ethereum/ubuntu bionic InRelease
Hit:6 http://us.archive.ubuntu.com/ubuntu bionic-backports InRelease
Reading package lists... Done
```

```
sudo apt-get install ethereum
```

```
juilee@juilee-VirtualBox:~$ sudo apt-get install ethereum
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  abi_gen bootnode clef evm geth puppeth rlpdump wnode
The following NEW packages will be installed:
  abi_gen bootnode clef ethereum evm geth puppeth rlpdump wnode
0 upgraded, 9 newly installed, 0 to remove and 43 not upgraded.
Need to get 40.6 MB of archives.
After this operation, 140 MB of additional disk space will be used.
Do you want to continue? [Y/n] y
Get:1 http://ppa.launchpad.net/ethereum/ethereum/ubuntu bionic/main amd64 abi_gen amd64 1.9.11+build21238+bionic [4,925 kB]
Get:2 http://ppa.launchpad.net/ethereum/ethereum/ubuntu bionic/main amd64 bootnode amd64 1.9.11+build21238+bionic [4,837 kB]
Get:3 http://ppa.launchpad.net/ethereum/ethereum/ubuntu bionic/main amd64 clef amd64 1.9.11+build21238+bionic [7,655 kB]
Get:4 http://ppa.launchpad.net/ethereum/ethereum/ubuntu bionic/main amd64 evm amd64 1.9.11+build21238+bionic [4,760 kB]
Get:5 http://ppa.launchpad.net/ethereum/ethereum/ubuntu bionic/main amd64 geth amd64 1.9.11+build21238+bionic [7,993 kB]
Get:6 http://ppa.launchpad.net/ethereum/ethereum/ubuntu bionic/main amd64 puppeth amd64 1.9.11+build21238+bionic [3,621 kB]
Get:7 http://ppa.launchpad.net/ethereum/ethereum/ubuntu bionic/main amd64 rlpdump amd64 1.9.11+build21238+bionic [799 kB]
Get:8 http://ppa.launchpad.net/ethereum/ethereum/ubuntu bionic/main amd64 wnode amd64 1.9.11+build21238+bionic [6,038 kB]
Unpacking evm (1.9.11+build21238+bionic) ...
Selecting previously unselected package geth.
Preparing to unpack .../4-geth_1.9.11+build21238+bionic_amd64.deb ...
Unpacking geth (1.9.11+build21238+bionic) ...
Selecting previously unselected package puppeth.
Preparing to unpack .../5-puppeth_1.9.11+build21238+bionic_amd64.deb ...
Unpacking puppeth (1.9.11+build21238+bionic) ...
Selecting previously unselected package rlpdump.
Preparing to unpack .../6-rlpdump_1.9.11+build21238+bionic_amd64.deb ...
Unpacking rlpdump (1.9.11+build21238+bionic) ...
Selecting previously unselected package wnode.
Preparing to unpack .../7-wnode_1.9.11+build21238+bionic_amd64.deb ...
Unpacking wnode (1.9.11+build21238+bionic) ...
Selecting previously unselected package ethereum.
Preparing to unpack .../8-ethereum_1.9.11+build21238+bionic_amd64.deb ...
Unpacking ethereum (1.9.11+build21238+bionic) ...
Setting up bootnode (1.9.11+build21238+bionic) ...
Setting up puppeth (1.9.11+build21238+bionic) ...
Setting up clef (1.9.11+build21238+bionic) ...
Setting up evm (1.9.11+build21238+bionic) ...
Setting up abi_gen (1.9.11+build21238+bionic) ...
Setting up rlpdump (1.9.11+build21238+bionic) ...
Setting up wnode (1.9.11+build21238+bionic) ...
Setting up geth (1.9.11+build21238+bionic) ...
Setting up ethereum (1.9.11+build21238+bionic) ...
```

To connect to the **Testnet** network to download **blockchain** to store in "**/users/packt/ethereum**"

```
geth --datadir "/home/juilee/packt/ethereum" --networkid 2

juilee@juilee-VirtualBox:~$ geth --datadir "/home/juilee/packt/ethereum" --networkid 2
WARN [03-12|10:58:57.019] Sanitizing cache to Go's GC limits           provided=102
4 updated=662
INFO [03-12|10:58:57.022] Maximum peer count                         ETH=50 LES=0
  total=50
INFO [03-12|10:58:57.022] Smartcard socket not found, disabling       err="stat /r
un/pcscd/pcscd.comm: no such file or directory"
INFO [03-12|10:58:57.026] Starting peer-to-peer node                   instance=Get
h/v1.9.11-stable-6a62fe39/linux-amd64/go1.13.8
INFO [03-12|10:58:57.026] Allocated trie memory caches                 clean=165.00
MiB dirty=165.00MiB
INFO [03-12|10:58:57.027] Allocated cache and file handles             database=/ho
me/juilee/packt/ethereum/geth/chaindata cache=331.00MiB handles=2048
INFO [03-12|10:58:57.055] Opened ancient database                     database=/ho
me/juilee/packt/ethereum/geth/chaindata/ancient
INFO [03-12|10:58:57.055] Writing default main-net genesis block
INFO [03-12|10:58:57.311] Persisted trie from memory database           nodes=12356
size=1.78MiB time=42.322531ms gcnodes=0 gcsize=0.00B gctime=0s livenodes=1 live
size=0.00B
INFO [03-12|10:58:57.311] Initialised chain configuration           config="{Cha
inID: 1 Homestead: 1150000 DAO: 1920000 DAOSupport: true EIP150: 2463000 EIP155
: 2675000 EIP158: 2675000 Byzantium: 4370000 Constantinople: 7280000 Petersburg
: 7280000 Istanbul: 9069000, Muir Glacier: 9200000, Engine: ethash}"
INFO [03-12|10:58:57.311] Disk storage enabled for ethash caches       dir=/home/ju
ilee/packt/ethereum/geth/ethash count=3
INFO [03-12|10:58:57.311] Disk storage enabled for ethash DAGs        dir=/home/ju
ilee/.ethash               count=2
```

Geth lets us create **accounts**, that is, generate **keys** and **addresses** associated with them.

```
geth account new
```

When you run this command, you will be asked to enter a **password** to **encrypt** your account. If you forget your password, there is no way to access your account.

```
juilee@juilee-VirtualBox:~$ geth account new
INFO [03-12|11:30:27.417] Maximum peer count          ETH=50 LES=0
  total=50
INFO [03-12|11:30:27.417] Smartcard socket not found, disabling  err="stat /r
un/pcscd/pcscd.comm: no such file or directory"
Your new account is locked with a password. Please give a password. Do not forg
et this password.
Password:
Repeat password:

Your new key was generated

Public address of the key:  0xFB21e6C4d33279D5BAd84758591199064D7a89D7
Path of the secret key file: /home/juilee/.ethereum/keystore/UTC--2020-03-12T18
-30-37.602592807Z--fb21e6c4d33279d5bad84758591199064d7a89d7

- You can share your public address with anyone. Others need it to interact wit
h you.
- You must NEVER share the secret key with anyone! The key controls access to y
our funds!
- You must BACKUP your key file! Without the key, it's impossible to access acc
ount funds!
- You must REMEMBER your password! Without the password, it's impossible to dec
rypt the key!
```

To get a **list of all accounts** in your **local Wallet**, use the following command:

```
geth account list
```

The command will print a list of all the addresses of the accounts.

**Keys** are, by default, stored in the **--datadir** path, but you can use the **--keystore** option to specify a **different directory**.

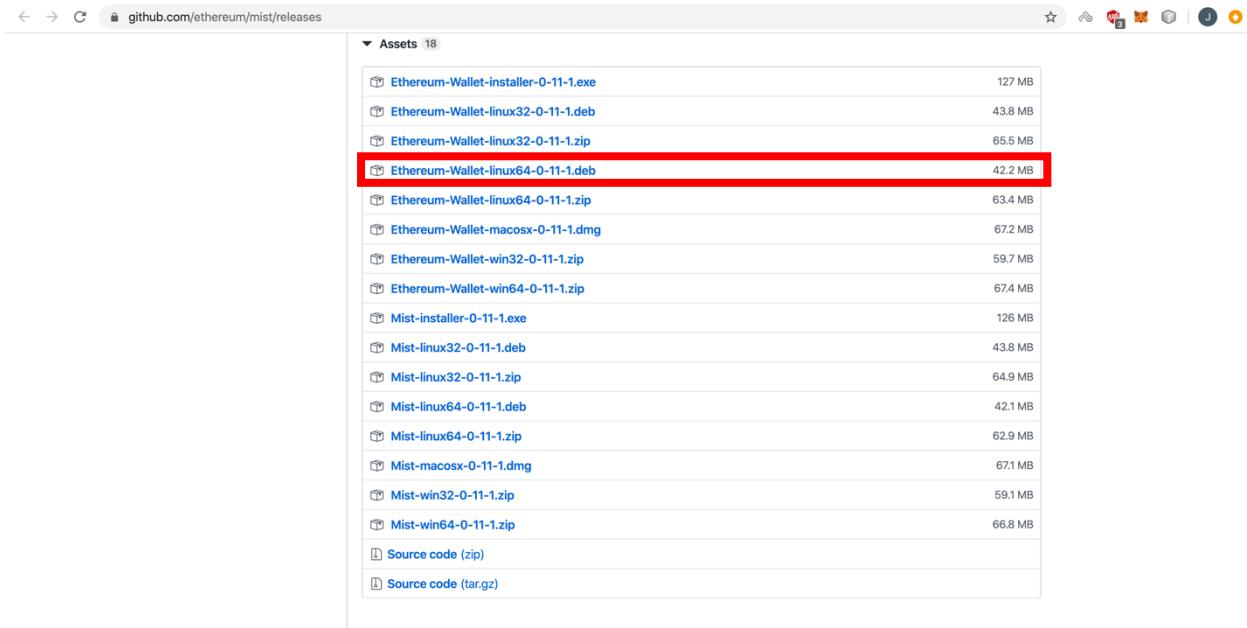
```
juilee@juilee-VirtualBox:~$ geth account list
INFO [03-12|11:34:19.117] Maximum peer count          ETH=50 LES=0
  total=50
INFO [03-12|11:34:19.117] Smartcard socket not found, disabling  err="stat /r
un/pcscd/pcscd.comm: no such file or directory"
Account #0: {fb21e6c4d33279d5bad84758591199064d7a89d7} keystore:///home/juilee/
.ethereum/keystore/UTC--2020-03-12T18-30-37.602592807Z--fb21e6c4d33279d5bad8475
8591199064d7a89d7
```

# Mist Installation

## Step 1:

Download Ethereum wallet from [github.com/Ethereum/mist/releases](https://github.com/Ethereum/mist/releases)

### Ethereum-Wallet-linux64-0-11.deb



## Step 2:

```
Go to terminal and execute following command:  
sudo apt-get install -f
```

```
juilee@juilee-VirtualBox:~/Downloads$ sudo apt-get install -f  
Reading package lists... Done  
Building dependency tree  
Reading state information... Done  
Correcting dependencies... Done  
The following additional packages will be installed:  
  gconf-service gconf-service-backend gconf2 gconf2-common libappindicator1  
  libgconf-2-4 libindicator7  
Suggested packages:  
  gconf-defaults-service indicator-application  
The following NEW packages will be installed:  
  gconf-service gconf-service-backend gconf2 gconf2-common libappindicator1  
  libgconf-2-4 libindicator7  
0 upgraded, 7 newly installed, 0 to remove and 6 not upgraded.  
1 not fully installed or removed.  
Need to get 952 kB of archives.  
After this operation, 8,816 kB of additional disk space will be used.  
Do you want to continue? [Y/n] Y  
Get:1 http://us.archive.ubuntu.com/ubuntu bionic/universe amd64 gconf2-common a  
ll 3.2.6-4ubuntu1 [700 kB]  
Get:2 http://us.archive.ubuntu.com/ubuntu bionic/universe amd64 libgconf-2-4 am  
d64 3.2.6-4ubuntu1 [84.8 kB]  
Get:3 http://us.archive.ubuntu.com/ubuntu bionic/universe amd64 gconf-service-b  
ackend amd64 3.2.6-4ubuntu1 [58.1 kB]  
Get:4 http://us.archive.ubuntu.com/ubuntu bionic/universe amd64 gconf-service a  
md64 3.2.6-4ubuntu1 [2,036 B]
```

## Step 3:

```
sudo dpkg -install Mist-linux64-0-11-1.deb
```

```
juilee@juilee-VirtualBox:~/Downloads$ sudo dpkg --install Mist-linux64-0-11-1.d  
eb  
(Reading database ... 202465 files and directories currently installed.)  
Preparing to unpack Mist-linux64-0-11-1.deb ...  
Unpacking mist (0.11.1-2616) over (0.11.1-2616) ...  
Setting up mist (0.11.1-2616) ...  
Processing triggers for hicolor-icon-theme (0.17-2) ...  
Processing triggers for gnome-menus (3.13.3-11ubuntu1.1) ...  
Processing triggers for desktop-file-utils (0.23-1ubuntu3.18.04.2) ...  
Processing triggers for mime-support (3.60ubuntu1) ...
```

## Step 4:

Run mist command

```
$ mist
```

