

Genaro Sharer Users Guide (Unix Version)

The first smart data ecosystem with a dual-strata architecture
integrating blockchain and storage layers

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Genaro Sharer Introduction

Genaro Sharer Overview

Genaro Eden Sharer (Genaro Sharer for short) is an economic, dual-strata cloud storage sharing network. The specified storage space can be shared, and when the Genaro Eden users upload the file fragments, the sharer gets the corresponding GNX storage reward. If the sharer's node is of good quality and the heft score can be added to the committee, you can also run the miner program to get the Genaro Network's block-package bonus and the fee generated by the Genaro Network transaction. The goal is to establish a token model through the principle of the sharing economy and release the social idle storage space and generate value.

Genaro Sharer (UNIX) Manual

1. Enter command

Window - Start Menu - Enter cmd; Mac - Find Utility - Terminal

2. Install genaroshare-daemon

Install guide: <https://www.npmjs.com/package/genaroshare-daemon>

2.1 Make sure to install the following dependencies :

- 1) Git
- 2) Python 2.7
- 3) Node.js
- 4) NPM
- 5) GCC/G++/Make

2.2 Compile dependency

```
# xcode-select --install
```

2.3 After the installation is complete, install the following packages.

```
# npm install --global genaroshare-daemon
```

2.4 Enter genaroshare in the terminal to see if the installation was successful.

2.5 Query command help

```
# genaroshare help [Commands]
```

```

chiguangzhideAir:~ chiguangzhi$ genaroshare
env.STORJ_NETWORK: genaro
8.7.3
1.2.0-genaro

Usage: genaroshare [options] [command]

Options:
  -V, --version      output the version number
  -h, --help         output usage information

Commands:
  start              start a farming node
  stop               stop a farming node
  restart            restart a farming node
  status             check status of node(s)
  logs              tail the logs for a node
  create             create a new configuration
  createWallet       create a new wallet
  listWallets        list wallets
  deleteWallet       delete wallet
  save              snapshot the currently managed node
  load               load a snapshot of previously managed nodes
  destroy            kills the farming node
  killall            kills all nodes and stops the daemon
  stake             starts stake to share the storage
  addNode            add storage node
  getNodeToken       get node token
  daemon            starts the daemon
  help [cmd]         display help for [cmd]
chiguangzhideAir:~ chiguangzhi$

```

3. Start daemon, run the program

genaroshare daemon

```

Last login: Thu Jul 19 18:04:51 on ttys001
[XingquandeMacBook-Pro-2:~ zheng$ genaroshare daemon
env.STORJ_NETWORK: genaro
8.7.3
1.2.0-genaro
env.STORJ_NETWORK: genaro

* starting daemon in background

```

genaroshare help daemon

```

Usage: genaroshare-daemon [options]

Options:
  --status           print the status of the daemon and exit
  -F, --foreground   keeps the process in the foreground
  -r, --remote <hostname:port> hostname and optional port of the daemon to connect to when using --status
  -h, --help         output usage information

```

4. Create/manage wallet

4.1 Create Wallet

```
XingquandeMacBook-Pro-2:~ zheng$ genaroshare createWallet
env.STORJ_NETWORK: genaro
8.7.3
1.2.0-genaro
env.STORJ_NETWORK: genaro
prompt: Enter your password: *

You have successfully created a new wallet.
THIS IS YOUR WALLET ADDR, PRIVATE KEY AND MNEMONIC, PLEASE WRITE DOWN. THIS WILL ONLY SHOW ONCE:
wallet address: 63f1228d97b31c6f68e9226fd94377a16c53e67a
private key: 0x94d65ff389256dce93472f59ccc4bbc3cbaa879e33d18da3d7263b982170648
mnemonic:raccoon average subway danger quality silent august miracle brand kingdom lemon panther
You can import this key into other wallet software
```

genaroshare createWallet

- 1) You can add the parameter: -t privateKey to import the existing wallet with the private key;
- 2) You can add the parameter: -t mnemonic to import the existing wallet through the mnemonic;
- 3) You can add the parameter: -n <name> to specify the name of the wallet.

4.2 Delete Wallet

genaroshare deleteWallet -a <Wallet Address>

- 1) <Wallet Address>, Wallet address。

```
XingquandeMacBook-Pro-2:~ zheng$ genaroshare deleteWallet -a 63f1228d97b31c6f68e9226fd94377a16c53e67a
env.STORJ_NETWORK: genaro
8.7.3
1.2.0-genaro
env.STORJ_NETWORK: genaro
Your have deleted the wallet: 63f1228d97b31c6f68e9226fd94377a16c53e67a
```

4.3 Wallet list

genaroshare listWallets

```
XingquandeMacBook-Pro-2:~ zheng$ genaroshare listWallets
env.STORJ_NETWORK: genaro
8.7.3
1.2.0-genaro
env.STORJ_NETWORK: genaro
```

Name	Address
Account 1	63f1228d97b31c6f68e9226fd94377a16c53e67a

5. Create a new sharing configuration, share space

5.1 New configuration file

```
XingquandeMacBook-Pro-2:~ zheng$ genaroshare create
env.STORJ_NETWORK: genaro
8.7.3
1.2.0-genaro
env.STORJ_NETWORK: genaro
* configuration written to /Users/zheng/.config/genaroshare/configs/087c261aad1bf6d812d4eaa6d8259d771c9f7246.json
* opening in your favorite editor to tweak before running
...
* use new config: genaroshare start --config /Users/zheng/.config/genaroshare/configs/087c261aad1bf6d812d4eaa6d8259d771c9f7246.json
```

genaroshare create

- 1) After executing this command, the corresponding JSON configuration file will be generated

and opened directly. The configuration file has already explained the meaning of each field in the comments. Please change the meaning of the field when you change the field.

- 2) The IP address of the url in the bridges needs to be the same as the IP address of the seedList.
- 3) The configuration file address is shown in red.
- 4) rpcAddress: RPC's IP
- 5) doNotTraverseNat: if traverse is needed
- 6) storagePath: sharing path
- 7) storageAllocation: Shared space size, the default is 20G.

```
{
  // Set the STORJ/ERC20 wallet address for receiving contract payments
  "paymentAddress": "0x38820cCdf01B87A9FCf011Bb0E89D39477B489a7",
  // Subscribes to the given contract topics
  // See https://storj.github.io/core/tutorial-contract-topics.html
  "opcodesSubscriptions": [
    "0f01020202",
    "0f02020202",
    "0f03020202"
  ],
  // An array of bridges to connect and accept contracts,
  // send exchange reports and discover network seeds.
  "bridges": [
    {
      "url": "http://118.31.61.119:8080",
      "extendedKey": "xpub6A8D1xD5jQjU0WzHfH2MgAuANKDeThmeXqLYaXsUuzpvrF8Zvbf8MOXbYkoq1kCvvpb1NE9zAzeC9VQh8dMND0b8jC8cUH8F4jaUmfkyjr"
    }
  ],
  // Known preferred seeds in form of a storj URI
  // Example: "storj://[ip.or.hostname]:[port]/[nodeid]"
  "seedList": [
    "storj://118.31.61.119:4000/337472da3068fa05d415262baf4df5bada8aefdc"
  ],
  // Interface to bind RPC server, use 0.0.0.0 for all interfaces or if you
  // have a public address, use that, else leave 127.0.0.1 and Storj Share
  // will try to determine your address
  "rpcAddress": "127.0.0.1",
  // Port to bind for RPC server, make sure this is forwarded if behind a
  // NAT or firewall - otherwise Storj Share will try to punch out
  "rpcPort": 4000,
  // doNotTraverseNat: true requires you to have an external ip address.
  // You can use a proxy to gain an external IP address.
  // doNotTraverseNat: false Enables NAT traversal strategies
  // first UPnP, then reverse HTTP tunnel
  // if that fails. Disable if you are public or using dynamic DNS
  "doNotTraverseNat": false,
  // Maximum number of tunnels to provide to the network
  // Tunnels help nodes with restrictive network configurations participate
  "maxTunnels": 3,
  // Maximum number of concurrent connections to allow
  "maxConnections": 150,
  // If providing tunnels, the starting and ending port range to open for
  // them
  "tunnelGatewayRange": {
    "min": 4001,
    "max": 4003
  },
  // Number of times to retry joining the network and the wait time between
  "joinRetry": {
    "times": 3,
    "interval": 5000
  },
  // Temporarily stop sending OFFER messages if more than this number of shard
  // transfers are active
  "offerBackoffLimit": 4,
  // ECDSA private key for your network identity, your Node ID is derived from
  // this and it is used to sign and verify messages
  "networkPrivateKey": "38651d2b7e49ee4b9fe921a7fa48d8a09c1c979b9781193db2d07f90fe31907",
  // Determines how much detail is shown in the log:
  // 4 - DEBUG | 3 - INFO | 2 - WARN | 1 - ERROR | 0 - SILENT
  "loggerVerbosity": 3,
  // Path to write the log file to disk, leave empty to default to:
}
```

5.2 Start sharing space

genaroshare start --config <Configure Path>

- 1) <Configure Path>, Configuration file path, which is the configuration file created in 5.1

```
XingquandeMacBook-Pro-2:~ zheng$ genaroshare start --config /Users/zheng/.config/genaroshare/configs/087c261aad1bf6d812d4eaa6d8259d771c9f7246.json
env.STORJ_NETWORK: genaro
8.7.3
1.2.0-genaro
env.STORJ_NETWORK: genaro

* starting node with config at /Users/zheng/.config/genaroshare/configs/087c261aad1bf6d812d4eaa6d8259d771c9f7246.json
```


5.3 Check sharing status

```
XingquandeMacBook-Pro-2:~ zheng$ genaroshare status
env.STORJ_NETWORK: genaro
8.7.3
1.2.0-genaro
env.STORJ_NETWORK: genaro
```

Node	Status	Uptime	Restarts	Peers	Allocs	Delta	Port	Shared	Bridges
887c261aad1bf6d812d4eaa6d8259d771c9f7246 ~/Users/zheng/.config/genaroshare/share...	running	14s	0	0	0 0 received	...	4080 (uPNP)	... (...%)	connected

genaroshare status

- 1) Node: Share node's ID and storage path
- 2) Status: Running status
- 3) Uptime: Start time
- 4) Restarts: Times to restart
- 5) Allocs: the task received this time
- 6) Delta: time delayed
- 7) Port: start port
- 8) Shared: Storage sharing
- 9) Bridges: Bridging situation

The connection is successful when the corresponding values of running, delta, port, and bridges are all green.

5.4 Delete node

```
XingquandeMacBook-Pro-2:~ zheng$ genaroshare destroy -i 887c261aad1bf6d812d4eaa6d8259d771c9f7246
env.STORJ_NETWORK: genaro
8.7.3
1.2.0-genaro
env.STORJ_NETWORK: genaro
* share 887c261aad1bf6d812d4eaa6d8259d771c9f7246 destroyed
```

genaroshare destroy -i <Node>

- 1) <Node>, node name

5.5 pause node

genaroshare stop -i <Node>

- 1) <Node>,node name

5.6 restart node

genaroshare restart -i <Node>

- 1) <Node>, node name

6. Stake

6.1 Stake

genaroshare stake -a <Wallet Address> -q <Stake Amount>

```
XingquandeMacBook-Pro-2:~ zheng$ genaroshare stake -a 63f1228d97b31c6f68e9226fd94377a16c53e67a -q 6000
env.STORJ_NETWORK: genaro
8.7.3
1.2.0-genaro
env.STORJ_NETWORK: genaro
prompt: Enter your password: *

hash: 0x371cc933f863bf16ed442932f3c53b79006c9deba51502a667d53fa1db01a37e
* stake successfully
```

- 1) <Wallet Address>, wallet address
- 2) <Stake Amount>, stake limit

7. Bind node

7.1 Get the node token you want to bind to the stake wallet

genaroshare getNodeToken -a <WalletAddress> -c <Config Path>

```
chiguangzhideAir:~ chiguangzhi$ genaroshare getNodeToken -a f4d93a2c5bdef91ff93a285c7c9e8a4305282f68 -c /Users/chigua
ngzhi/.config/genaroshare/configs_testchain/aa59356902ad43da5bf189c3e030b383da177e59.json
env.STORJ_NETWORK: genaro
8.7.3
1.2.0-genaro

Usage: genaroshare [options] [command]

Options:
  -V, --version    output the version number
  -h, --help       output usage information

Commands:
  start            start a farming node
  stop            stop a farming node
  restart         restart a farming node
  status          check status of node(s)
  logs            tail the logs for a node
  create          create a new configuration
  createWallet    create a new wallet
  listWallets     list wallets
  deleteWallet    delete wallet
  save            snapshot the currently managed node
  load            load a snapshot of previously managed nodes
  destroy         kills the farming node
  killall         kills all nodes and stops the daemon
  stake           starts stake to share the storage
  addNode         add storage node
  getNodeToken    get node token
  daemon          starts the daemon
  help [cmd]      display help for [cmd]
chiguangzhideAir:~ chiguangzhi$ env.STORJ_NETWORK: genaro

* token: 0x7d6438fa821a80b91cd8c7f1c2cfab802fc63d8da3f64a086b51d9936c937e987e27888683b62f921126d77e793cdeaa7d77498
4179bbcc862c238e92b2b4e55e01--aa59356902ad43da5bf189c3e030b383da177e59
[]
```

- 1) < Config Path > Path to the node configuration file

7.2 Bind node

genaroshare addNode -a <Wallet Address> -t <Token>

```
[chiguangzhideA1r:~ chiguangzhi$ genaroshare addNode -a f4d93a2c5bdef91ff93a285c7c9e8a4305202f60 -t 0x7d6430fa821a88b91cd8c7f1c2cfab802fc63d8da3f64a086b51d9936c937e987e27888683b62f921126d77e793cdeaa7d774964179bbc862c238e92b2b4e55e01--aa59356902ad43da5bf189c3e030b383da177e59
env.STORJ_NETWORK: genaro
8.7.3
1.2.0-genaro
env.STORJ_NETWORK: genaro
[prompt: Enter your password: *****

hash: 0xb4906118c33a744117e5216a58c71fb55dc4b5667e4b72a4bf5cb9a11e51ef75
```

- 1) <Wallet Address>, wallet address
- 2) <Token>, The node token obtained in step 6.2

7.3 Remove Bind

genaroshare removeNode -a <Wallet Address> -n <Node>

- 1) <Wallet Address>, Wallet address;
- 2) <Node>, node name

8. Check sharing log

8.1 show log

```
XinguangMacBook-Pro-2:~ zheng$ genaroshare logs -i bc7b43fb3a122d81ea832149b49764a05c66967c
env.STORJ_NETWORK: genaro
8.7.3
1.2.0-genaro
env.STORJ_NETWORK: genaro
[ info ] [ 2018-07-19T11:02:00.869Z ]
[ info ] [ 2018-07-19T11:02:00.869Z ]
[ info ] [ 2018-07-19T11:02:00.869Z ]
[ info ] [ 2018-07-19T11:02:00.870Z ]
[ info ] [ 2018-07-19T11:02:00.866Z ]
[ info ] [ 2018-07-19T11:12:00.866Z ]
[ attempting to join network via storj://118.31.61.119:4000/337472da3068fa05d415262baf4df5bada8aefdc
[ sending FIND_NODE message to {"userAgent":"8.7.3","protocol":"1.2.0-genaro","address":"118.31.61.119","port":4000,"nodeID":"337472da3068fa05d415262baf4df5bada8aefdc","lastSeen":"1531990720868}
[ warn ] [ 2018-07-19T11:12:00.901Z ]
[ missing or empty reply from contact
[ warn ] [ 2018-07-19T11:12:31.013Z ]
[ rpc call adfe043408d214867974d7319f925aa819d297f6 timed out
[ warn ] [ 2018-07-19T11:12:31.014Z ]
[ query failed, removing contact for shortlist, reason RPC with ID 'adfe043408d214867974d7319f925aa819d297f6' timed out
[ warn ] [ 2018-07-19T11:12:31.014Z ]
[ failed to connect to seed storj://118.31.61.119:4000/337472da3068fa05d415262baf4df5bada8aefdc
[ warn ] [ 2018-07-19T11:12:31.014Z ]
[ failed to join the network, queuing re-entry
[ info ] [ 2018-07-19T11:12:31.014Z ]
[ info ] [ 2018-07-19T11:12:31.015Z ]
[ info ] [ 2018-07-19T11:12:31.015Z ]
[ info ] [ 2018-07-19T11:12:31.015Z ]
[ info ] [ 2018-07-19T11:12:31.017Z ]
[ info ] [ 2018-07-19T11:12:31.017Z ]
[ info ] [ 2018-07-19T11:12:31.018Z ]
[ info ] [ 2018-07-19T11:12:31.018Z ]
[ info ] [ 2018-07-19T11:17:00.869Z ]
[ publishing message on topic "0e01"
[ info ] [ 2018-07-19T11:22:31.018Z ]
[ attempting to join network via storj://118.31.61.119:4000/337472da3068fa05d415262baf4df5bada8aefdc
[ info ] [ 2018-07-19T11:22:31.020Z ]
[ sending FIND_NODE message to {"userAgent":"8.7.3","protocol":"1.2.0-genaro","address":"118.31.61.119","port":4000,"nodeID":"337472da3068fa05d415262baf4df5bada8aefdc","lastSeen":"1531999351019}
[ warn ] [ 2018-07-19T11:22:31.032Z ]
[ missing or empty reply from contact
[ warn ] [ 2018-07-19T11:23:01.174Z ]
[ rpc call bf9374cc4fd98aa692ad84989e84ac063259612f timed out
[ warn ] [ 2018-07-19T11:23:01.174Z ]
[ query failed, removing contact for shortlist, reason RPC with ID 'bf9374cc4fd98aa692ad84989e84ac063259612f' timed out
[ warn ] [ 2018-07-19T11:23:01.175Z ]
[ failed to connect to seed storj://118.31.61.119:4000/337472da3068fa05d415262baf4df5bada8aefdc
[ warn ] [ 2018-07-19T11:23:01.175Z ]
[ failed to join the network, queuing re-entry
[ info ] [ 2018-07-19T11:23:01.175Z ]
[ info ] [ 2018-07-19T11:23:01.175Z ]
```

genaroshare logs -i <Node>

1) log saved path: /Users/<UserName>/config/genaroshare/logs

9. How to update Genaro Sharer and check updates

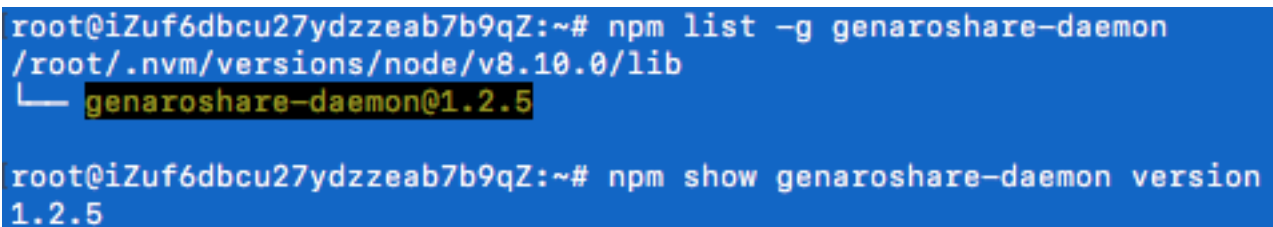
Genaroshare-daemon: The program will continue to improve, and if you need to upgrade, first check if there is a new version:

Check the local version number with the following command:

```
npm list -g genaroshare-daemon
```

Check the latest version number with the following command:

```
npm show genaroshare-daemon version
```



```
root@iZuf6dbcu27ydzzeab7b9qZ:~# npm list -g genaroshare-daemon
/root/.npm/versions/node/v8.10.0/lib
└─ genaroshare-daemon@1.2.5

root@iZuf6dbcu27ydzzeab7b9qZ:~# npm show genaroshare-daemon version
1.2.5
```

e.g:

Install the latest version of genaroshare-daemon with the following command

```
npm install -g genaroshare-daemon
```

10. Testnet environment miner upgrade (only for miners participating in the test period)

Before the end of the test period, Genaro will notify all users participating in the test to back up their data, so the miner can delete the data of the shared space at the end of the test period.

The upgrade is divided into 4 steps:

1. Stop sharing, command:

```
# genaroshare killall
```

2. Delete data

Open the JSON format configuration file (by default, `~/.config/genaroshare/configs` or `~/.config/storjshare/configs`), where the value of `storagePath` is the shared path and delete all files in the path.

Delete the JSON formatted configuration file itself

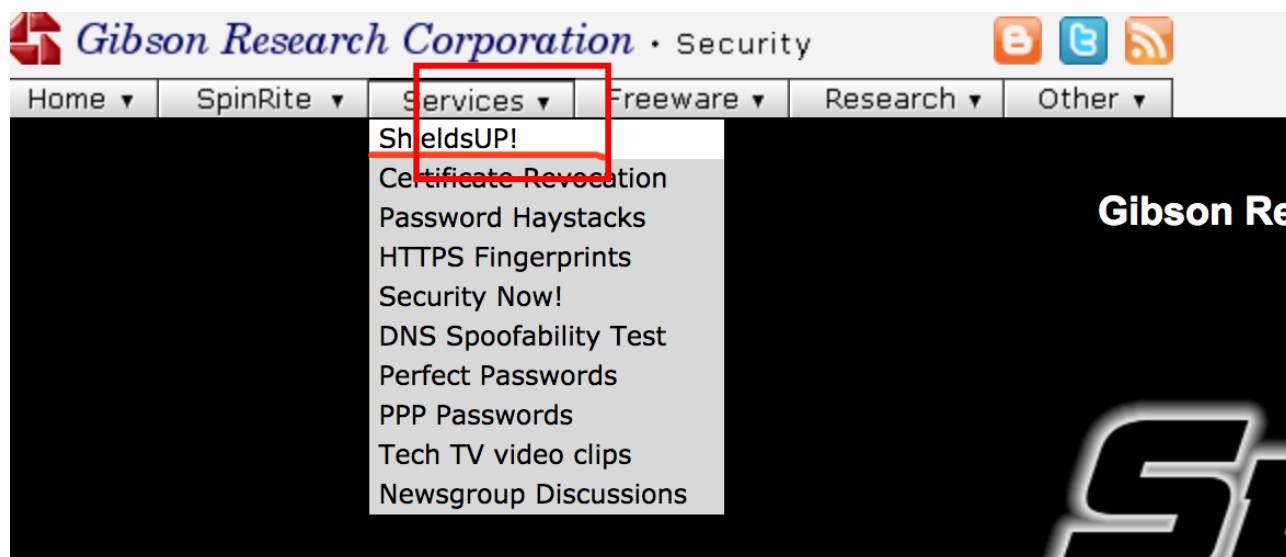
3. Update `genaroshare-daemon,command`:

```
npm install -g genaroshare-daemon
```

4. Follow the steps in this document to start a new formal sharing.paymentinfo:

Commonly used to detect whether the page can be uPnP:

<https://www.grc.com/intro.htm> Follow the steps below



Welcome to ShieldsUP!

If you have not visited for some time, please note that:

- Our new **Perfect Passwords** facility is used by thousands of people every day to generate ultra-high-quality random passwords for securing WiFi and other services.
- Our weekly **Security Now!** audio podcast has covered **every security issue** you might have. These mp3 audio files are freely downloadable, and since we have transcripts of every podcast, you can use our sitewide search to find any podcast by keyword.

If you are new to this site and our services:

Please take just a moment to read and consider these three points:

Your use of the Internet security vulnerability profiling services on this site constitutes your FORMAL PERMISSION for us to conduct these tests and requests our transmission of Internet packets to your computer. ShieldsUP!! benignly probes the target computer at your location. Since these probes must travel from **our** server to **your** computer, you should be certain to have administrative right-of-way to conduct probative protocol tests through any and all equipment located between your computer and the Internet.

NO INFORMATION gained from your use of these services will be retained, viewed or used by us or anyone else in any way for any purpose whatsoever.

If you are using a personal firewall product which LOGS contacts by other systems, you should expect to see entries from this site's probing IP addresses: **4.79.142.192** -thru- **4.79.142.207**. Since we own this IP range, these packets will be from us and will NOT BE ANY FORM OF MALICIOUS INTRUSION ATTEMPT OR ATTACK on your computer. You can use the report of their arrival as handy confirmation that your intrusion logging systems are operating correctly, but please do not be concerned with their appearance in your firewall logs. It's expected.

Your equipment at IP:

27.115.27.22

Is now being queried:



**THE EQUIPMENT AT THE TARGET IP ADDRESS
DID NOT RESPOND TO OUR UPnP PROBES!**

(That's good news!)

Shields UP!!

Port Authority Edition – Internet Vulnerability Profiling
by Steve Gibson, Gibson Research Corporation



Greetings!

Without your knowledge or explicit permission, the Windows networking technology which connects your computer to the Internet **may be offering some or all of your computer's data to the entire world at this very moment!**

- **For orientation and background**, please examine the page links provided below for important information about Internet vulnerabilities, precautions and solutions.
- **First time users** should start by checking their **Windows File Sharing** and **Common Ports** vulnerabilities with the "File Sharing" and "Common Ports" buttons below.
- For orientation and information about the Port Authority system, **click the Home or Help icons** in the titlebar . . .

[Click here to check your router now...](#)

**GRC's Instant UPnP
Exposure Test**

If you show the following picture, it proves that your route does not support upnp

FAQ

1. Bridges as disconnected:

When the bridges connection failed, the user will need to check if the settings are correct as following:

```
genaroshare-daemon
* daemon is already running
genaroshare-start --config /Users/.../.config/genaroshare/configs/070932e1a01a4820836e4d32754821088ff8352d.json
* starting node with config at /Users/weilongwu/.config/genaroshare/configs/070932e1a01a4820836e4d32754821088ff8352d.json
genaroshare status
```

Node	Status	Uptime	Restarts	Peers	Allocs	Delta	Port	Shared	Bridges
070932e1a01a4820836e4d32754821088ff8352d	running	5s	0	0	0	disconnected
					0 received			(...%)	

2. The port should be displayed in green after the bridges are connected, but the port does not show in green?

The problem is that the machine is not connected via uPnP, uPnP does not work, please check if the router is blocked.

3. When can I start to earn rewards by sharing hard drive space?

The Genaro Network mainnet is officially launched on 12th, December 2018. All Genaro storage space sharers can participate and get the corresponding GNX storage network rewards when the mainnet launches. The qualified nodes will become a member of the committee as a master node, and can also run miner to receive the Genaro Network block generation rewards and transaction fee rewards.

4. What are the benefits of sharing nodes? How to calculate?

- As the mainnet launches, all nodes can receive rewards from the storage network. if a user staked

more than 500,000 GNX, and the data stack node heft value is ranked within 31, the user will become a member of the next committee. As a master node, the user can run Miner to synchronize all clocks; while receiving the storage rewards, the user can also receive the mining rewards as well. (User can download Miner from <https://genaro.network>)

- After the Mainnet is online, the revenues obtained by the data stack (nodes) are combined with storage network revenue and mining (on-chain) revenue.
- Storage network revenue is determined by the node's contribution to the storage network. The more data the node stores, the more stable the online time is, the greater the total storage heft ratio of the stored storage hefts to the entire network, the more the storage network benefits.
- Storage Revenue (Year) = Storage weight / Whole Network Storage weight ✖ The coin pool annual storage reward rate of the coin pool.

Annual rewards of the coin pool = total tokens * 10% (coefficient of the coin pool) * 50% (coefficient of the storage pool) * 5% (annual release rate) * M (0 < M ≤ 100%, coefficient of the storage rewards, determined by the purchasing amount)

Specifically,

If the actual storage purchase amount of the entire network is 80T, M=1%;

If the actual storage purchase amount of the entire network is 1000T, M=12.5%;

- All users sharing the effective space and storing the real data nodes will get the storage weighted ratio and get the storage network reward.

Mining rewards

Mining rewards are determined by the asset ratio of the committee nodes. Including the entire network transaction fee bonus + block bonus. The more the stake is, the greater the weighted ratio accounts for the total committee weighted ratio, more mining rewards are earned when the block is generated.

Mining Rewards (annual) = personal staking weight / total committee staking weight * annual pool mining reward

Annual mining rate of the token pool = total coins * 10%(coefficient of the coin pool)* 50%(coefficient of the mining pool rewards)* 5%(annual release rate)* M (0 < M ≤100%, coefficient of the mining rewards, determined by the entire staking amount of the committee)

Specifically,

If the total stake amount of the committee = 1 / 2400× total # of tokens, M=1%:

If the total stake amount of the committee = 2 / 2400× total # of tokens, M=2%:

If the total stake amount of the committee = 99 / 2400× total # of tokens, M=99%:

If the total stake amount of the committee = 100 / 2400× total # of tokens, M=100%:

For each node that has shared its storage spaces, and stores real data, the node will get its storage weight and relevant rewards.

● **Note:**

The mining rewards can only be obtained if the node is ranked among the top 31 in the committee. The top 31 nodes with more than 500,000GNX staked are qualified for the committee as master nodes and can achieve mining rewards.

5. How do I share hard disk space by using sharer and become Genaro's data stack node to get storage revenue?

There are FIVE steps to becoming a data stack and gaining storage network revenue:

1. Ensure that the computer is connected to the public network IP and download the sharer program.
2. Create a shared configuration and share hard drive space.
3. Set the node's configuration file to ensure that the node is in normal operation.
4. Stake on GNX
5. Bind the shared node. Get the income.

6. How can I be elected as a committee member and get mining rewards?

To share the hard drive to obtain the income of the Genaro public chain network requires two conditions:

1. Become a data stack node, and rank among top 31 nodes with more than 500,000 GNX staked, and become a member of the committee as a master node.
2. Download the miner program to synchronize the entire network block. Download address and instructions for use: <https://genaro.networkwork>

7. What is the coin pool? Will the total amount change??

The coin pool is the token incentive mechanism for the entire Genaro Network's dual-strata smart data ecosystem. It is also an important part of Genaro's sharing economic ecosystem. The initial assets of the coin pool account for 10% of the total Genaro eco-coin. 5% of the remaining coins are distributed annually for the Genaro storage network and the public chain ecological construction. At the same time, the user's storage costs, downstream bandwidth usage fees, gas costs for the entire network transaction, and future Genaro based DApp user spending will once again return to the pool to form a healthy economic ecosystem.

8. As a data stack node of Genaro, how is it ranked and how do we calculate the weighted value?

The weight of the node is composed of two parts, the stake weight of the node and the storage weight. The ranking of nodes is according to the weighted ranking of stake weight and storage weight.

Specifically:

Weighted stake = a single node staked amount /total network stake amount * Coefficient of the stake

Weighted storage = a single node (shard) storage capacity/ total shard storage capacity *Coefficient of the storage

The more GNX staked, the higher the total stake weight. The larger the storage space, the longer the storage time and the more stable the network, the higher the storage weight will be.

9. Will I be penalized if I stop Sharer storage sharing (manual pause or blackout), or delete file data stored in the node path?

The system will analyze and judge based on the performance of the node, and at the same time the system will perform the sampling test of the retrievability of the shard. If the node is offline for too long, a feedback signal of detection sample shard will be send to the system, and the node will be considered as a malicious node for deleting user data, and the storage weight value of the node will be punished, deducting 10 times of the weight value of the sample shard capacity, thus affecting the total weight value of the node. Therefore, please keep stable network performance and node configuration, and do not delete user data allocated by the system.

10. As a master node of the committee, will I be penalized if I stop Sharer storage sharing (manual pause or blackout), or delete file data stored in the node path?

As a committee super node, the Miner program should be tested in ahead of time to ensure a stable network; in order to generate new blocks and synchronize with the entire network block, to record the accounting book, and to serve the operation of the main network. If the network is unstable when the Miner program is supposed to generate a new block, or if the Miner program is not running, or the node cannot connect to the system, the system will punish the committee node as the following rules:

In the committee, if the system can not approach the node information after the 900th block, the punishment shall be carried out in accordance, starting from the 900th block, i.e. $900 + n^2$ (n is an interger, starts from 0,1,2..), (as from the block number: 900 + [0, 1, 4, 9, 16, 25, 36, 49, 64, 81, 100..], respectively the system will dedect the GNX staked in the amount of $50 \times (n)$, (n is an

interger, starts from 0,1,2..) GNX. Each committee will be deducted for 1000 GNX at most. The coin deducted will all released to the mining pool, and will be used as the reward for future mining.

11. As a sharing node of Genaro, why do you need to download two programs when you want to get mining revenue?

The Genaro Network is a distributed, sharing cloud that combines a dual-strata smart data ecosystem of storage and public ownership. Sharer provides stable storage space for the entire storage network, and Miner guarantees stable operation of the entire Genaro Consensus Network. The user contributes to the storage network revenue by contributing idle storage space through the sharer. A good data stack node will be elected to the committee and is able run miner to get dual rewards from the Genaro Mainnet.

12. Why is the "current ranking" information different from the "current committee member list" ?

"Current Ranking" displays the current actual ranking information of the entire network. It's real-time updated.

The "current committee member list" is the top 31 nodes with more than 500,000GNX staked are qualified for the committee in the previous term.

All current information will take effect when the next committees are established.

13. Why is the "list of current committees" different from "current rankings" different?

"The current committee ranking" was determined by the results of the previous session of the committee. "Current Ranking" is the real-time ranking of the entire network. The first 101 nodes of the "current ranking" at the time of the establishment of the next committee will become members

of the next committee and receive rewards for mining.

14. Why is the "current ranking" team information different from the "joining co-build " team information different?

"Current Ranking" displays the the current actual ranking team information of the entire network. It's real-time updated, and unable to apply, withdraw, etc.

The team information in "join co-build" is the information listed of willingness to team. All "join co-build" team information will take effect when the next committee term is established.

15. Do you have to be public IP? Can I share without public IP?

The IP address is the Internet Protocol Address. The public IP address is the IP address that can be accessed by any device connected to the Internet. It is the only one in the Internet. The so-called public network is the Internet access method, so that the IP address obtained by the computer on the Internet is a non-reserved address on the Internet, and the computers on the public network and other computers on the Internet can access each other at will.

For home network users, your ISP (network operator, such as China Telecom, China Unicom, etc.) is responsible for assigning IP to you, but this IP is not necessarily a public network IP, you need to dial the device (usually a router, there are also It may be a router and a modern 2-in-1 device. Check if you are not a public IP, then you can communicate with your ISP. If the device running Genaro sharer does not have a public IP address and the router has it, you can enable the router's Upnp function, or set the port forwarding yourself, so you can share it as well.

16. After sharing the nodes, the bridges are disconnected. After the bridges are connected, the port should be displayed in green, what actions need to be taken if the port does not show in green?

If you are not connected to bridges, you need to check if the configured configuration file is correct. If the port display is not green. The problem is that the machine is not connected via uPnP, uPnP does not work, please check if the router is blocked.

17. How to set the configuration file to ensure the normal operation of the node?

After sharing the node, a configuration file is generated, and the shared attributes are set in this file. There are a few items that need to be customized:

1. The value after "rpcAddress" is changed from 127.0.0.1 to the public IP address of the machine;
2. The value of "doNotTraverseNat" is changed to "true" (if there is a public network ip);
3. The value of "storagePath" is changed to the shared path;
4. The value of "storageAllocation" is changed to the size of the shared space. The default is 20G.(Modify the configuration file, in the drop-down menu on the menu bar on the right side of the sharing interface)
5. After modifying the configuration file, you need to restart the node.

18. How many assets are required to stake, how many assets need to be staked on a node?

The current amount of the stake is at least 5000 GNX. A corresponding 5000 GNX per stake can be bound to a node. The amount of stakes also affects your stake heft rankings, which affects the overall ranking of your data stack. The more you bet, the more bets you get. The number of bound nodes can be less than the stake amount corresponding to the bound node. For example, I stake

500000GNX, the corresponding can be bound to 100 nodes, but currently I only bind 20 of them.

19. Is there a requirement for the sharer bandwidth or hard drive?

Now mainly considering the stability of the network, the minimum requirement for contributing space at this stage is 4TB, and the GNX required for PoS is 5000. There is no hard requirement for bandwidth, but the higher the bandwidth, the easier it becomes to be a shared node, and the bandwidth depends on the capacity of the hard disk. The recommended bandwidth is at least 10m, and the port starts at 4000 and can be mapped.

20. Do you need an 8T hard drive to stake 5000GNX? What is the relationship between staking on GNX and hard drive sharing space?

An 8T hard drive is not required. Betting 5000GNX corresponds to the maximum share of 8T, for 0-8T you will need to pledge 5000GNX.. Therefore, the maximum hard disk space for each node is 8T.

Stake GNX as PoS	Bindable Nodes	Corresponding Sharing Space
[5000, 10000)	1	0 — 8 T
[10000, 15000)	2	0 — 16 T
[15000, 20000)	3	0 — 24 T
.....	
Every 5000 increases in GNX	Bind One More Node	

There is no strict requirement for bandwidth, but the higher the bandwidth, the easier it becomes to be a sharing node, and the bandwidth depends on the capacity of the hard drive.

The bandwidth is at least 10m, the port is 4000, and can be mapped.

Keeping online is a stable node. The larger the position is, the larger the sharable space.

21. How can I make sure whether I have been connected to the public IP?

You can check the reason and check whether the sharer used is the latest version; or you can check the reason why the sharer is not working properly due to the network or the computer itself through the error prompted by the sharer;

Through the community consulting solution; join the WeChat group and add WeChat administrator: imarii6221217 to indicate the Genaro Sharer issue.

Send feedback to Genaro official. The feedback is to provide information about the computer system, version, sharer version, symptoms, error messages, logs, etc.; eden@genaro.network

22. How can I tell if my stake is successful?

After the stake is successful, on the data stack management interface, your bet assets will be displayed, and the total number of bindable nodes will also be seen.

23. Does the stake need to cost gas fee?

The bet needs to call the smart contract of the main network. So it takes a certain amount of GNX. The cost of gas consumed can be set by itself. It can also be based on the current optimum value given by the system.

24. What do the colors at the port mean?

The Status

Gray: stopped

Green: running

Red: error

Delta

Green: Delay within 500ms

Red: Delay exceeds 500ms

Port

Green: Non-private network IP, and the socket connection can be successfully established according to rpcAddress and rpcPort in the configuration file.

Yellow: The user file cannot be accepted directly, but the tunnel connection is successful, and the file can be accepted through the tunnel.

Red: doNotTraverseNat (not Nat penetration) in the configuration file is configured to true and is not a public IP address.

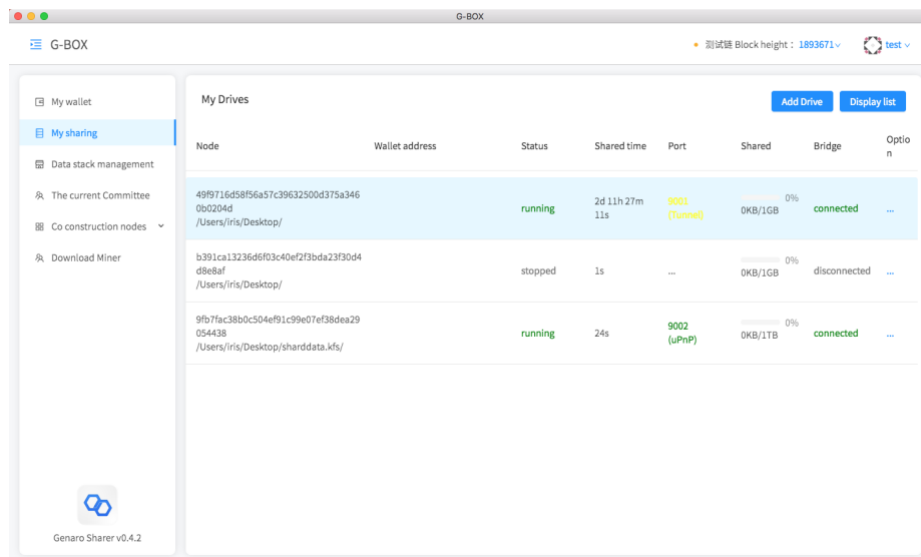
Bridges

Gray: Disconnected

Yellow: Connecting

Orange: Confirming

Green: Connected



The status, port, and bridge are all green, which proves that the node is running normally.

25. Why do I need to stake in Sharer? If I don't share, can I share my free space with Sharer?

If you don't stake, you can share the node. But the storage rewards will not be generated.

The purpose of the stake behavior is to improve the stability of the sharing node and to ensure that most nodes have a long-term effective online mechanism.

So if you want to get the shared revenue, you need to stake first, get the right to bind the sharing

node, and then bind the node to get the sharing revenue.

The current least amount of stake is 5000 GNX.

26. Can I withdraw my GNX after I stake? How to withdraw the stake?

The way to release the staked GNX is to click "unstake" button.

In the "Data Stack Management", the user can choose to click "stake" button or "unstake". After confirming the notice, the user can enter the wallet password to unstake. The "unstake" will take effect automatically within three to five days. The system will automatically return the GNX that the user staked back to wallet where the node is located. After the release request is issued, the node will not get the corresponding storage rewards.

27. Does Genaro charge for the operations?

Genaro does not charge any third party fees. Genaro Eden and Genaro Sharer are a pure sharing economic community. Users use the storage space to charge, download traffic charges, and the transaction consumption gas is all allocated to the corresponding sharer node.

28. What if I find a Sharer running problem?

You can check the reason and check whether the sharer used is the latest version; or you can use the error prompted by sharer to troubleshoot the reason why the sharer is not working properly due to the network or the computer itself;

- Through the community consulting solution; join the WeChat group and add WeChat administrator: **Chigz**, to indicate: the Genaro Sharer issue.
- Give feedback to the Genaro official. The feedback is to provide information about the computer system, version, sharer version, symptoms, error messages, logs, etc.; eden@genaro.network.

29. How to become a stable node? Are there any requirements?

Keeping online is seen as a stable node, and the larger the position, the larger the shareable space.

30. Can I still get a reward if no data is assigned to my storage node?

If the shared storage space is not used by the user, the storage reward cannot be obtained and there is no storage heft. All storage nodes that are assigned to data will have storage hefts and will receive storage revenue. The storage revenue obtained = storage weight / total network storage * total storage weight * system annual storage reward. If you enter the node of the committee, you can get a reward for the whole network by mining based on the storage revenue.

31. Is it now supported to store other ERC-20 Tokens? What should I do if I transfer to another ERC-20 Token? How to get it back?

After the mainnet is online, the latest versions of the Genaro Wallet, Genaro Eden and Genaro Sharer wallets will be running on the Genaro mainnet, and only mainnet GNX will operate on these DApps. In the future, the multi-wallet function will be supported and cross-chain trading will also be implemented in future versions.

● Note:

Do not transfer other tokens to Genaro's exclusive wallet until the official website announces it supports for other tokens. Otherwise, Genaro Network will not be responsible for the loss of the token.

32. Can I run Sharer with my NAS device?

It depends on the configuration of your NAS device, operating system, etc. Generally speaking, it is ok, but the Genaro team does not test all models of NAS and does not guarantee if it's running. In addition, operating the NAS requires a certain technical foundation, at least users need to be familiar with the Linux command line (most NAS is a Linux system), and the configuration of the operating system's IP, which can solve various problems encountered when installing and compiling Node. Due to the wide variety of NAS branded devices, the Genaro team does not provide dedicated technical support for the operation of NAS devices.

Download and Contact Us

Download Genaro Sharer

Download and use Genaro Sharer to share your free hard disk space for rewards !



MAC OS X



WINDOWS



LINUX / UNIX

Contact Us

| If you have any problems or suggestions when using Genaro products, please contact us :
eden@genaro.network