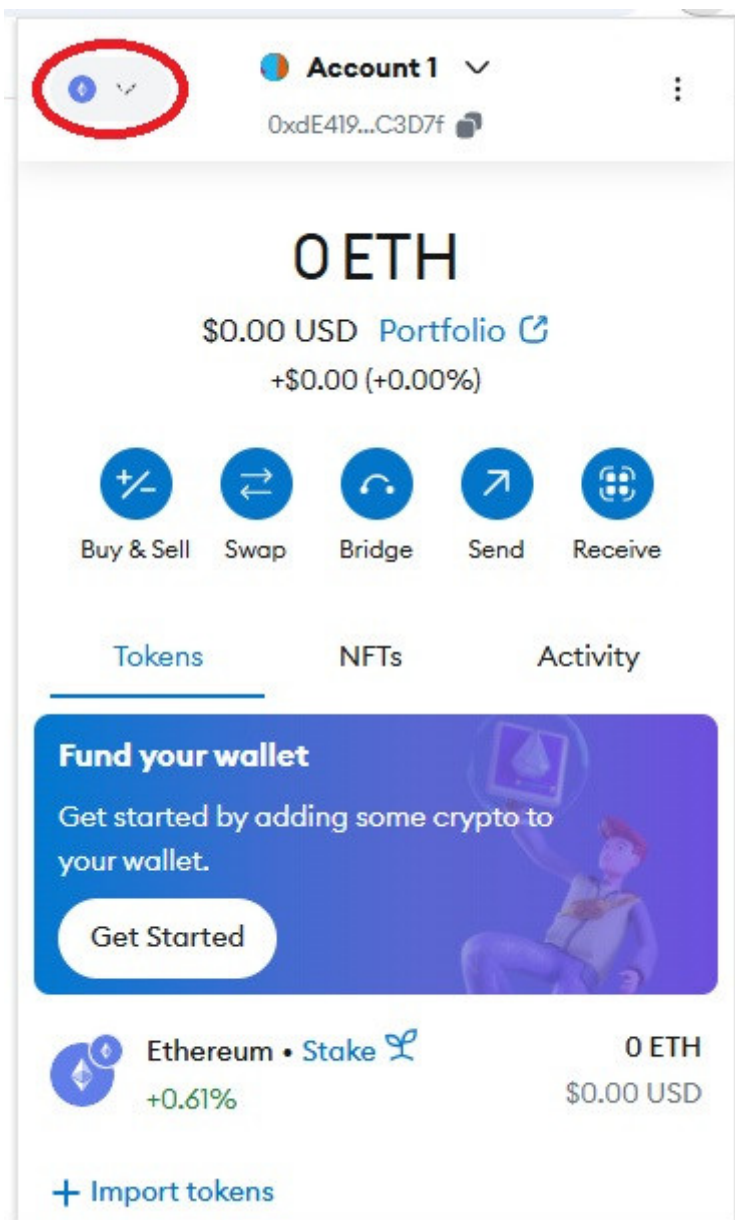


Usage

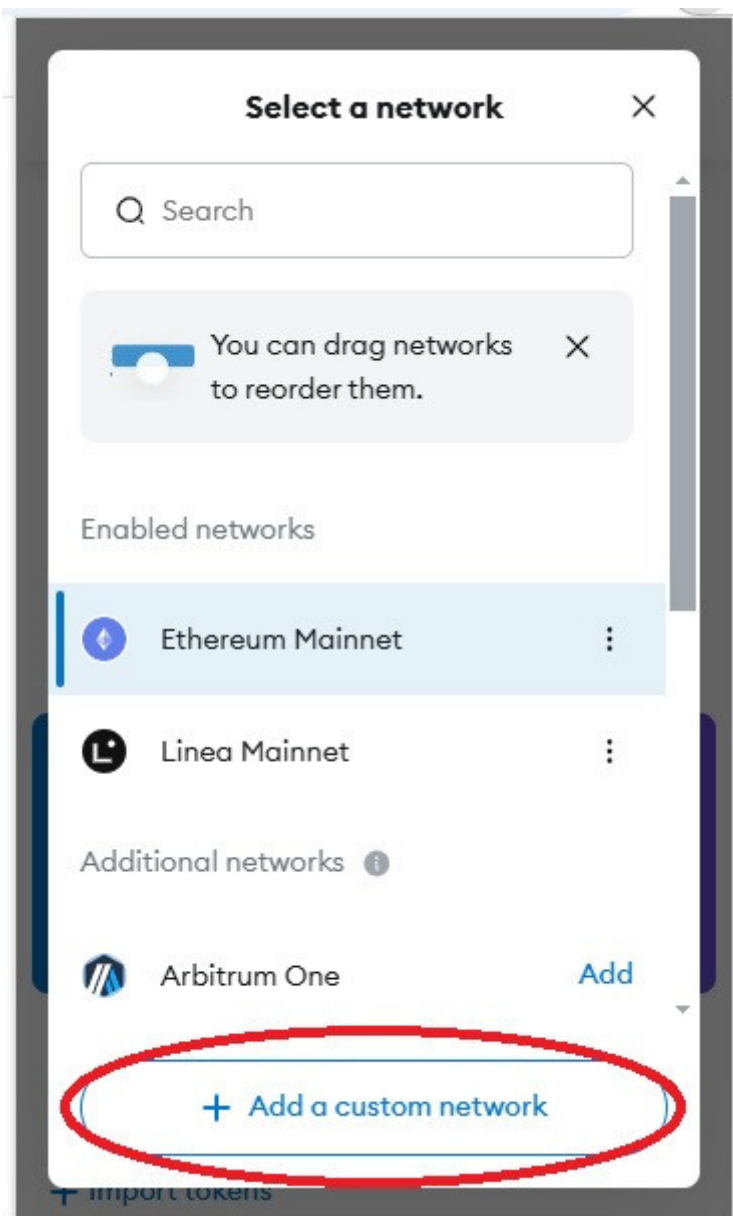
- [Setting up Metamask wallet for BPX Chain \(Chrome extension\)](#)
- [Setting up Metamask wallet for BPX Chain \(Mobile app\)](#)
- [Installing and running BPX full node on Windows](#)
- [Installing and running BPX full node on Debian / Ubuntu](#)

Setting up Metamask wallet for BPX Chain (Chrome extension)

1. Open **MetaMask**. Expand the list of available networks.



2. Scroll to the bottom and select "**Add a custom network**".



3. Fill out the form as follows and click "**Save**":

Network name: BPX Chain

Default RPC URL: <https://rpc.bpxchain.cc>

Chain ID: 279

Currency symbol: BPX

Block explorer URL: <https://explorer.bpxchain.cc>

< **Add a custom network** ×

Network name

BPX Chain

Default RPC URL

rpc.bpxchain.cc ✓

Chain ID

279

Currency symbol

BPX

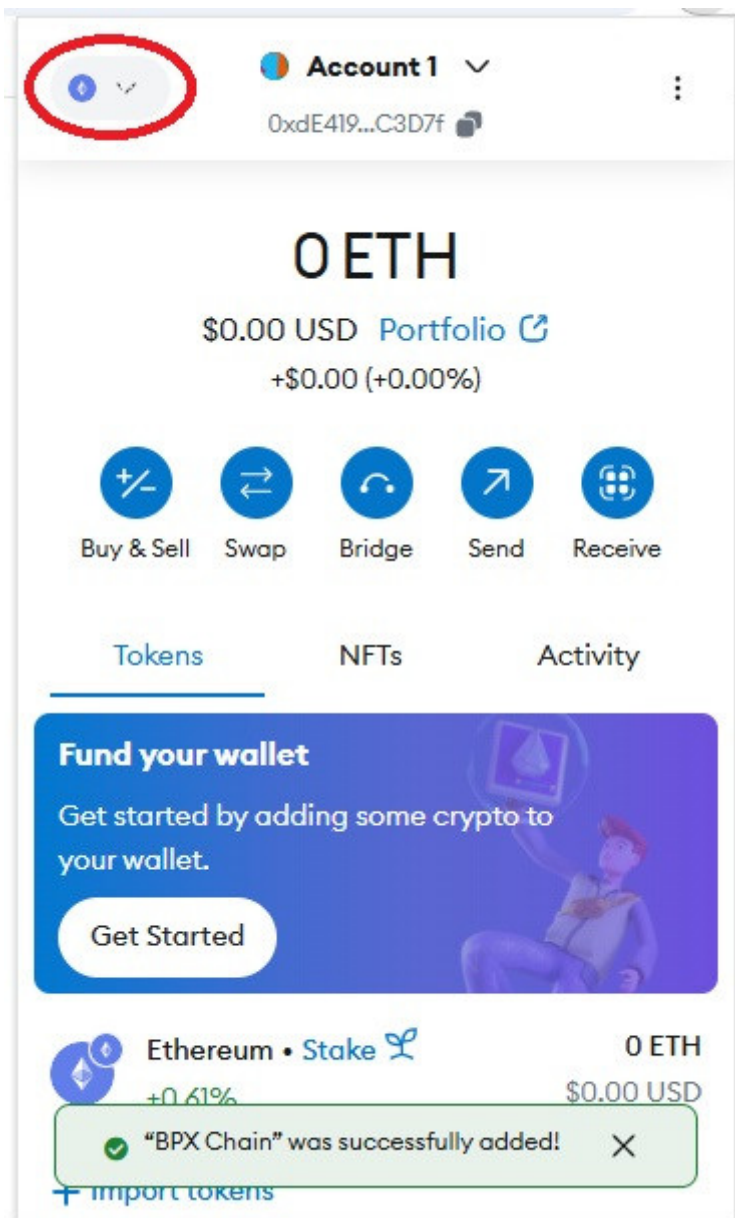
Block explorer URL

explorer.bpxchain.cc ✓

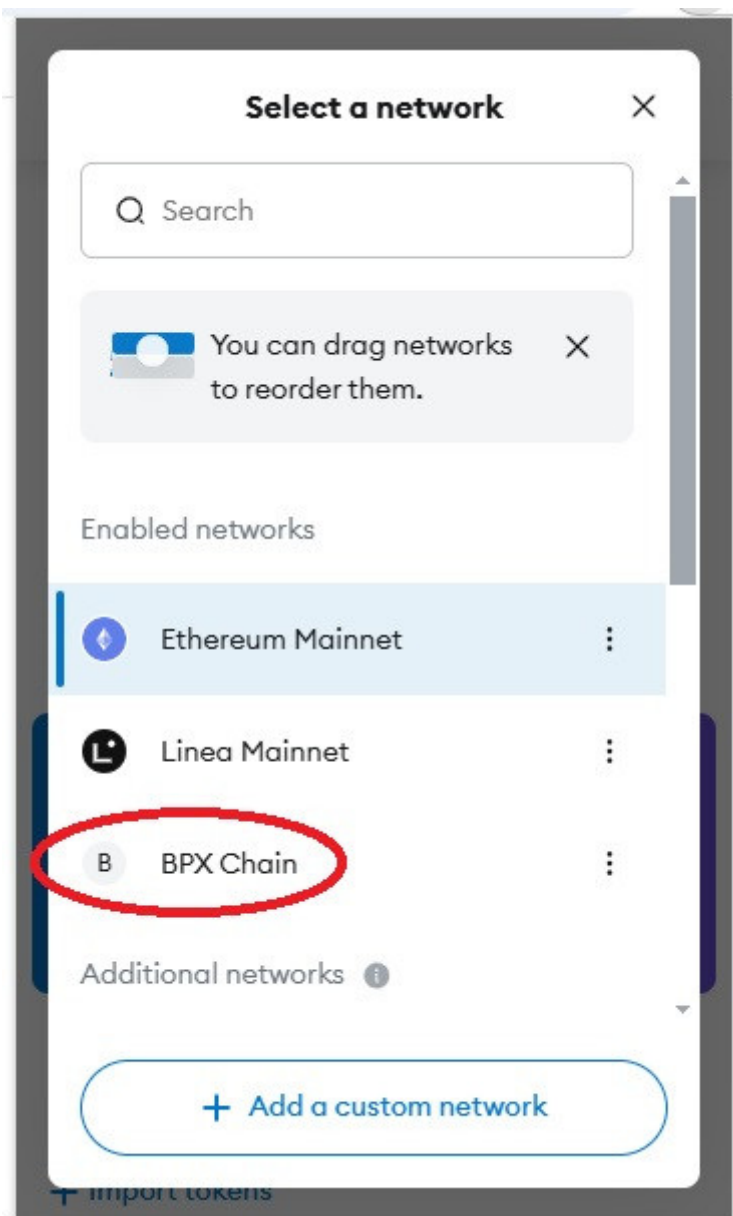
Save

+ import tokens

4. You should see a success notification. Expand the list of available networks again.



5. Select "**BPX Chain**", which should now be on the list.



6. Your wallet is now ready to use.

B

Account 1

0xdE419...C3D7f

0 BPX

\$0.00 USD [Portfolio](#)



Buy & Sell



Swap



Bridge



Send



Receive

Tokens

NFTs

Activity

B

BPX

0 BPX

\$0.00 USD

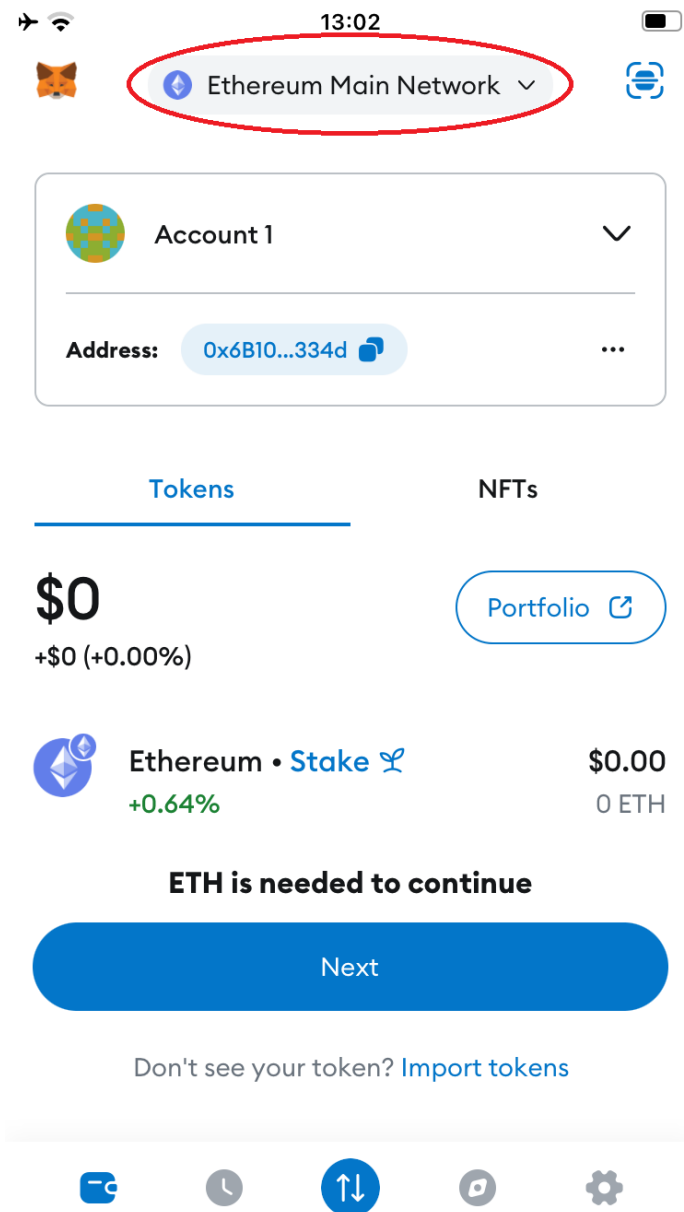
[+ Import tokens](#)

[Refresh list](#)

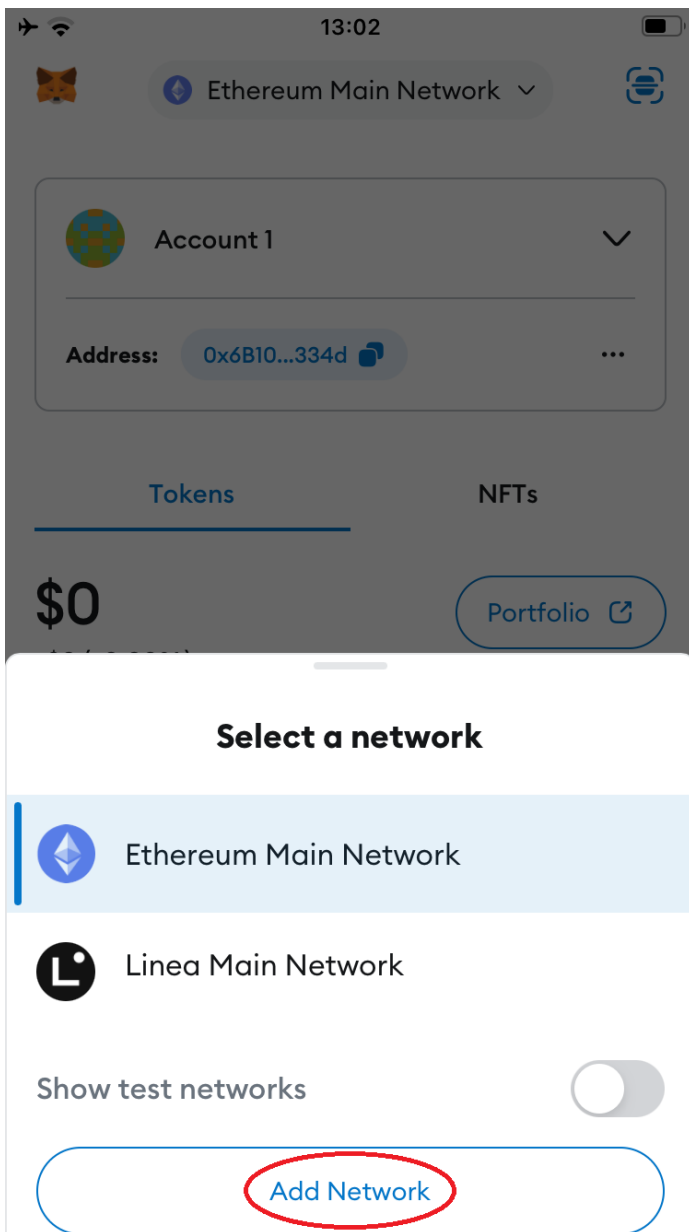
[MetaMask support](#)

Setting up Metamask wallet for BPX Chain (Mobile app)

1. Open **MetaMask**. Expand the list of available networks.



2. Select "**Add Network**".



3. Go to the "**Custom networks**" tab.



13:02














Networks



Popular

Custom networks

	Avalanche Mainnet C-Chain	Add
	Arbitrum One	Add
	BNB Chain	 Add
	Base	 Add
	Optimism	Add
	Palm	Add
	Polygon Mainnet	Add
	zkSync Era Mainnet	 Add

4. Fill out the form as follows and confirm:

Network name: BPX Chain

Default RPC URL: <https://rpc.bpxchain.cc>

Chain ID: 279

Currency symbol: BPX

Block explorer URL: <https://explorer.bpxchain.cc>



13:03



Networks



Popular

Custom networks

record your network activity. Only add custom networks you trust.

Network Name

BPX Chain

RPC Url

https://rpc.bpxchain.cc

Chain ID

279

Symbol

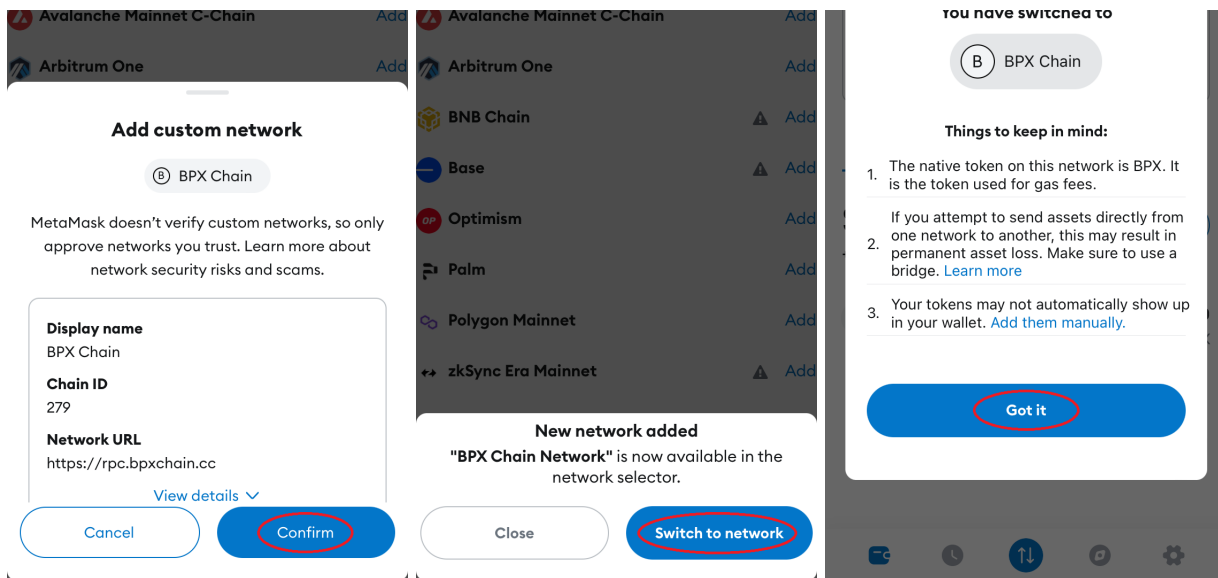
BPX

Block Explorer URL

https://explorer.bpxchain.cc

Add

5. Proceed through the next steps by tapping "**Confirm**", "**Switch to network**", and "**Got it**".



6. Your wallet is now ready to use.



13:03



B BPX Chain ▾



Account 1



Address:

0x6B10...334d



Tokens

NFTs

\$0

+\$0 (+0.00%)

Portfolio 



BPX

\$0.00

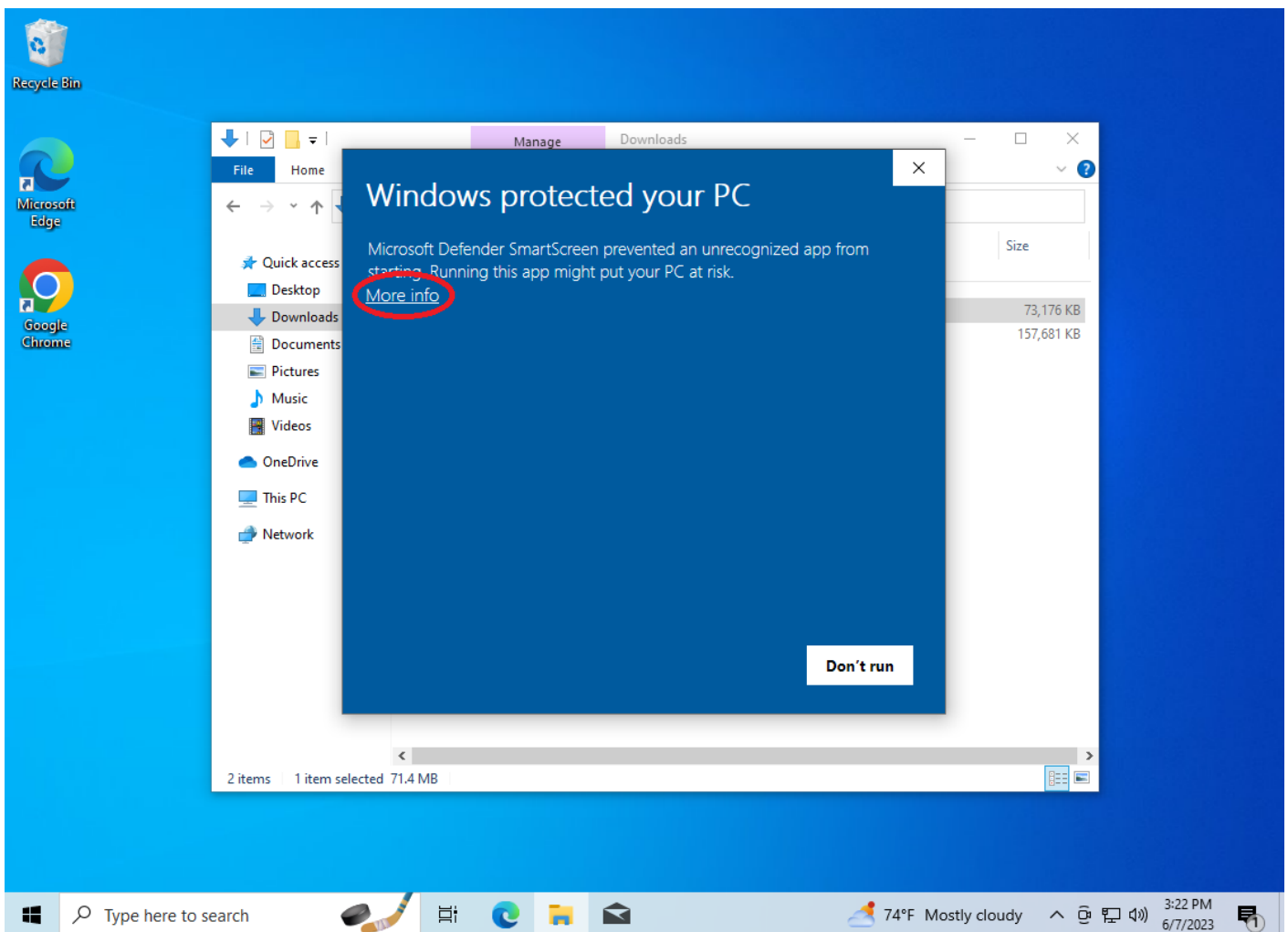
0 BPX

Don't see your token? [Import tokens](#)



Installing and running BPX full node on Windows

1. Download the EXE installers for the latest releases of the **Execution Client** and **Beacon Client**.
2. Run the **Execution Client** installer first. Depending on your Windows version, different warnings may appear. In these cases, click "**More info**", then select "**Run anyway**", and "**Yes**".





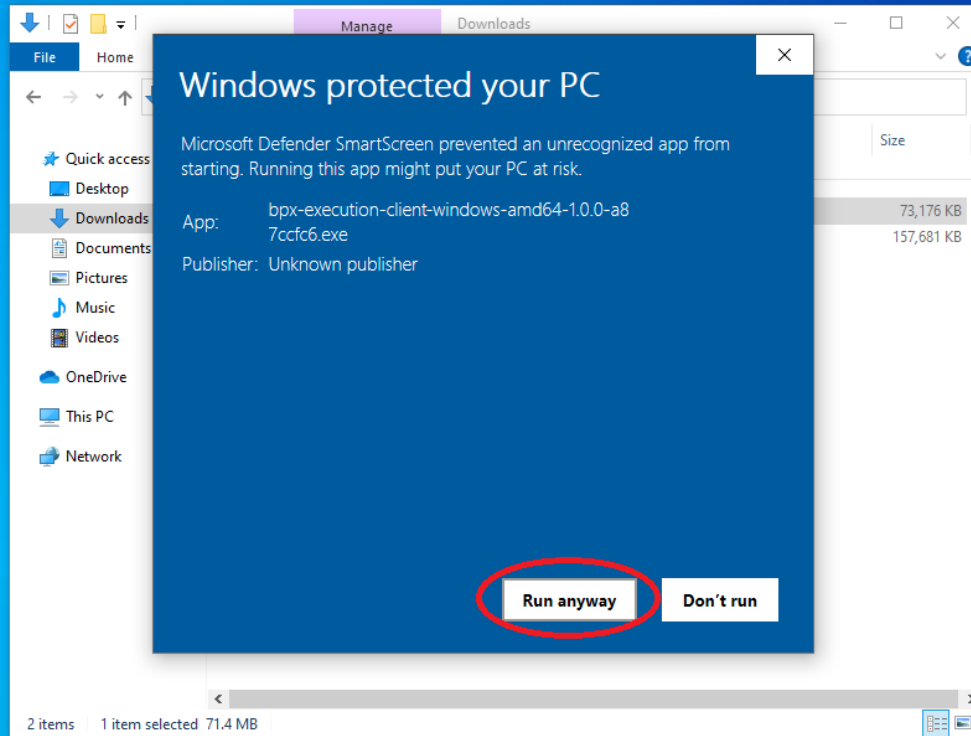
Recycle Bin



Microsoft Edge



Google Chrome



Type here to search

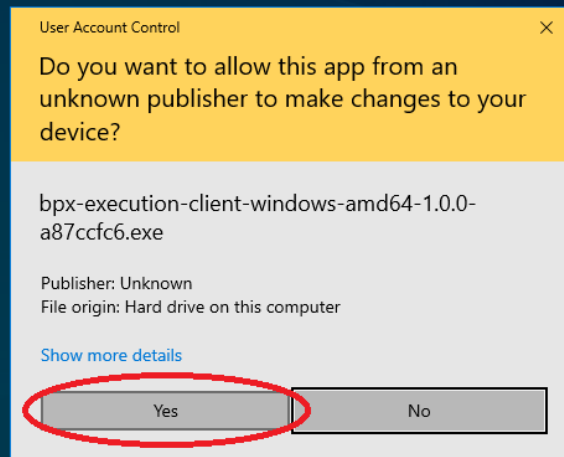


74°F Mostly cloudy

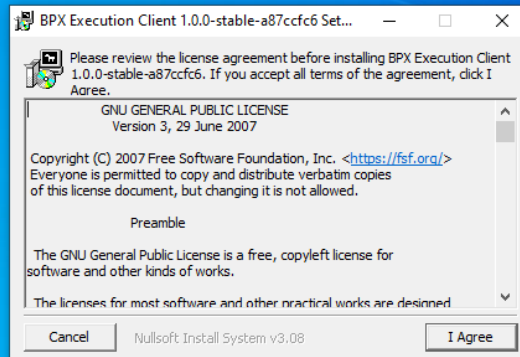


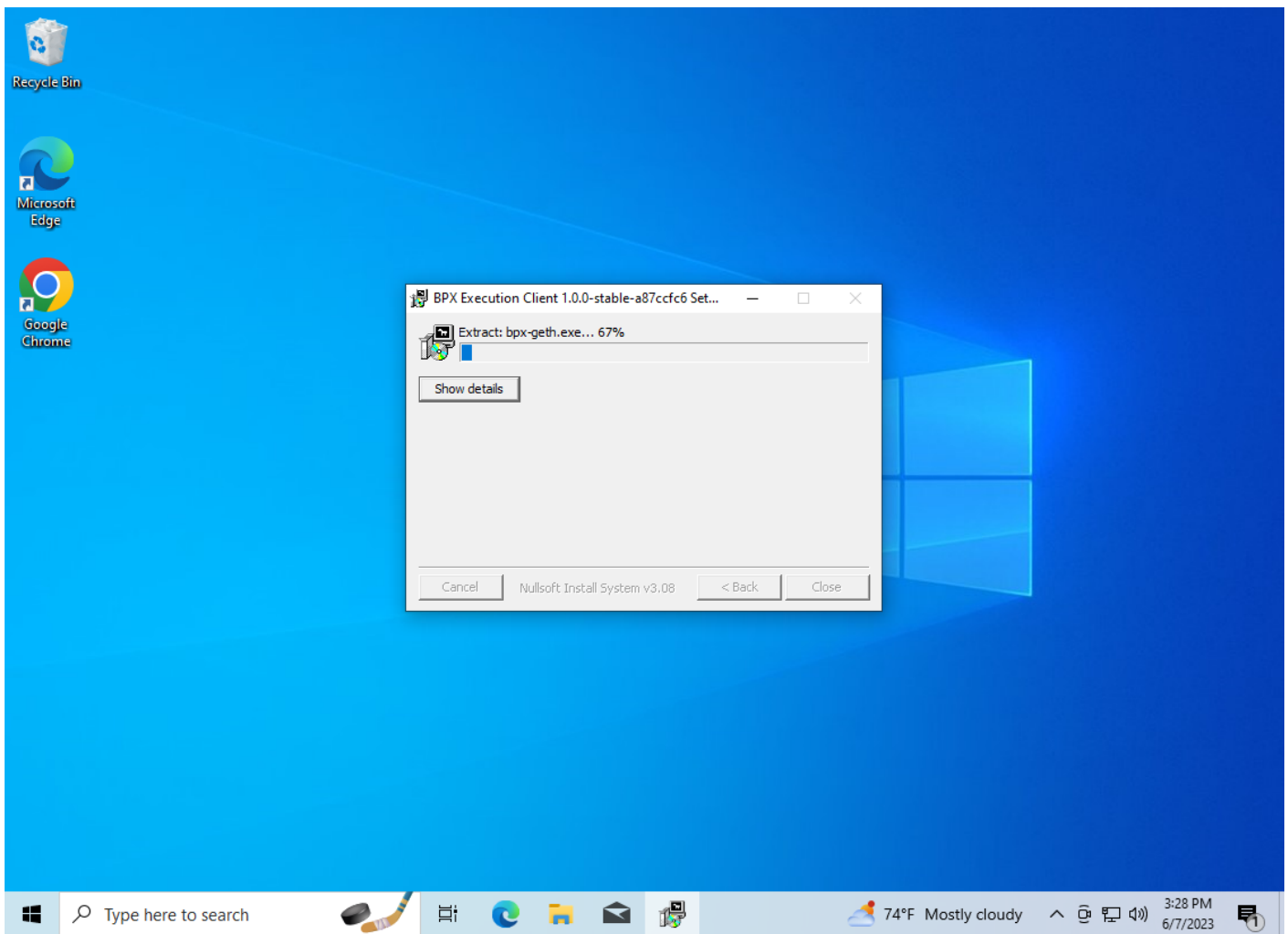
3:22 PM
6/7/2023



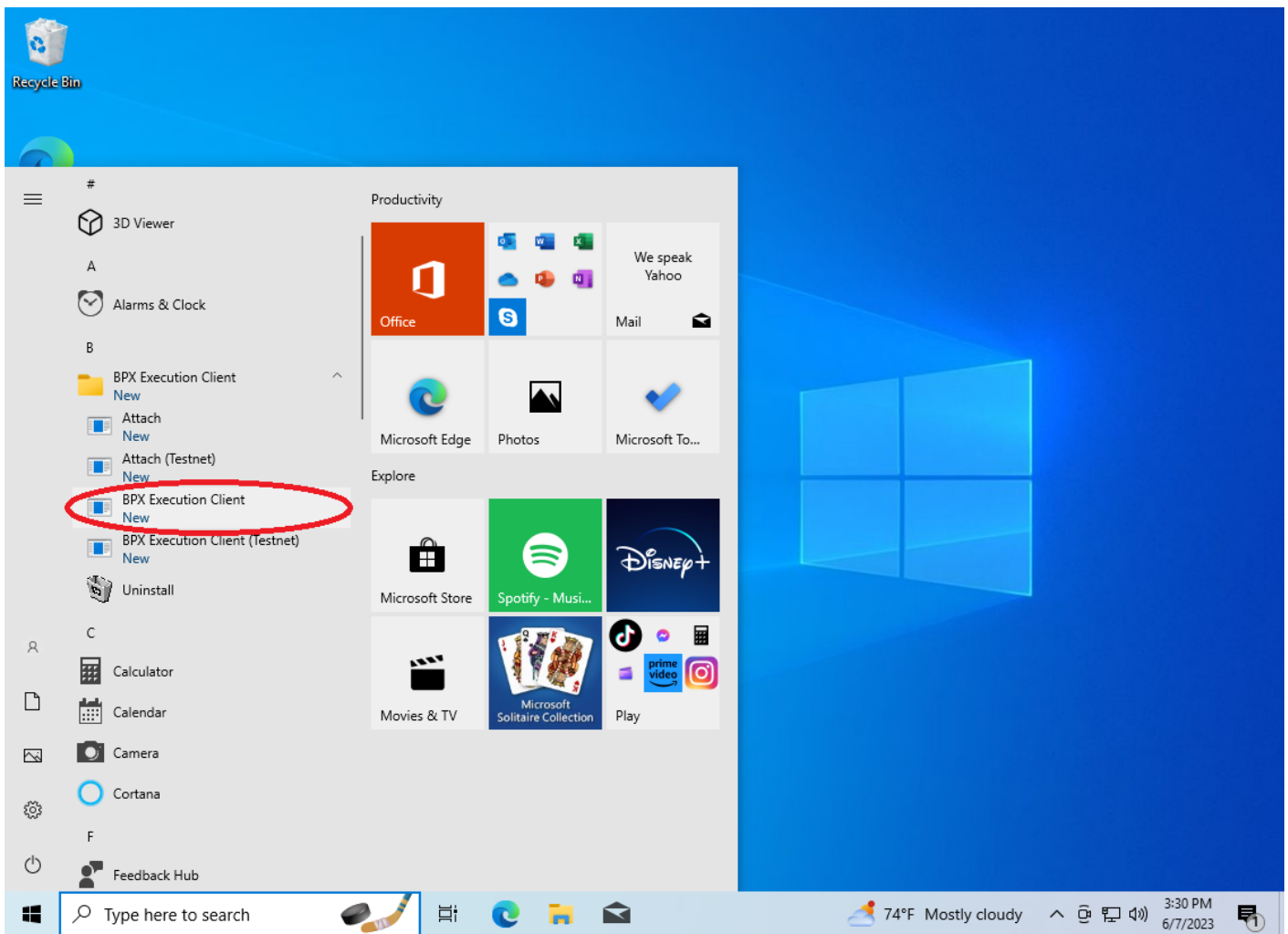


3. Follow all the installer steps by clicking "**I Agree**", "**Next**" and "**Install**". Once the installation process is complete, close the installer.





4. A shortcut to the **BPX Execution Client** will be created in the Start Menu. Launch it from there.



5. Allow the Windows Firewall to open the execution client port. The execution client will start, and you should see its console window.



Recycle Bin



Microsoft Edge



Google Chrome

BPX Execution Client

```
INFO [06-07|15:35:39.789] Loaded most recent local block      number=0 hash=3a40b6..7d8896 td=0 age=54y2mo2w
WARN [06-07|15:35:39.887] Failed to load snapshot              err="missing or corrupted snapshot"
INFO [06-07|15:35:39.982] Rebuilding state snapshot
INFO [06-07|15:35:40.007] Regenerated local transaction journal transactions=0 accounts=0
INFO [06-07|15:35:40.047] Chain post-merge, sync via beacon client
INFO [06-07|15:35:40.031] dangling=0 elapsed=24.37
INFO [06-07|15:35:40.149] 42.091ms
INFO [06-07|15:35:40.093] 1 udp=30303 tcp=30303
INFO [06-07|15:35:40.742] c82af6faff9dd60826da1004
INFO [06-07|15:35:40.812] ts=localhost
INFO [06-07|15:35:41.324] host vhosts=localhost
INFO [06-07|15:35:41.406] WARN [06-07|15:35:42.095] compatible eth support"
INFO [06-07|15:35:42.750] 27.148 udp=49905 tcp=30303
```

Windows Security Alert

Windows Defender Firewall has blocked some features of this app

Windows Defender Firewall has blocked some features of bpx-geth on all public and private networks.

Name: bpx-geth

Publisher: Unknown

Path: C:\program files\bpx execution client\bpx-geth.exe

Allow bpx-geth to communicate on these networks:

☐ Private networks, such as my home or work network

☒ Public networks, such as those in airports and coffee shops (not recommended because these networks often have little or no security)

[What are the risks of allowing an app through a firewall?](#)

Allow access

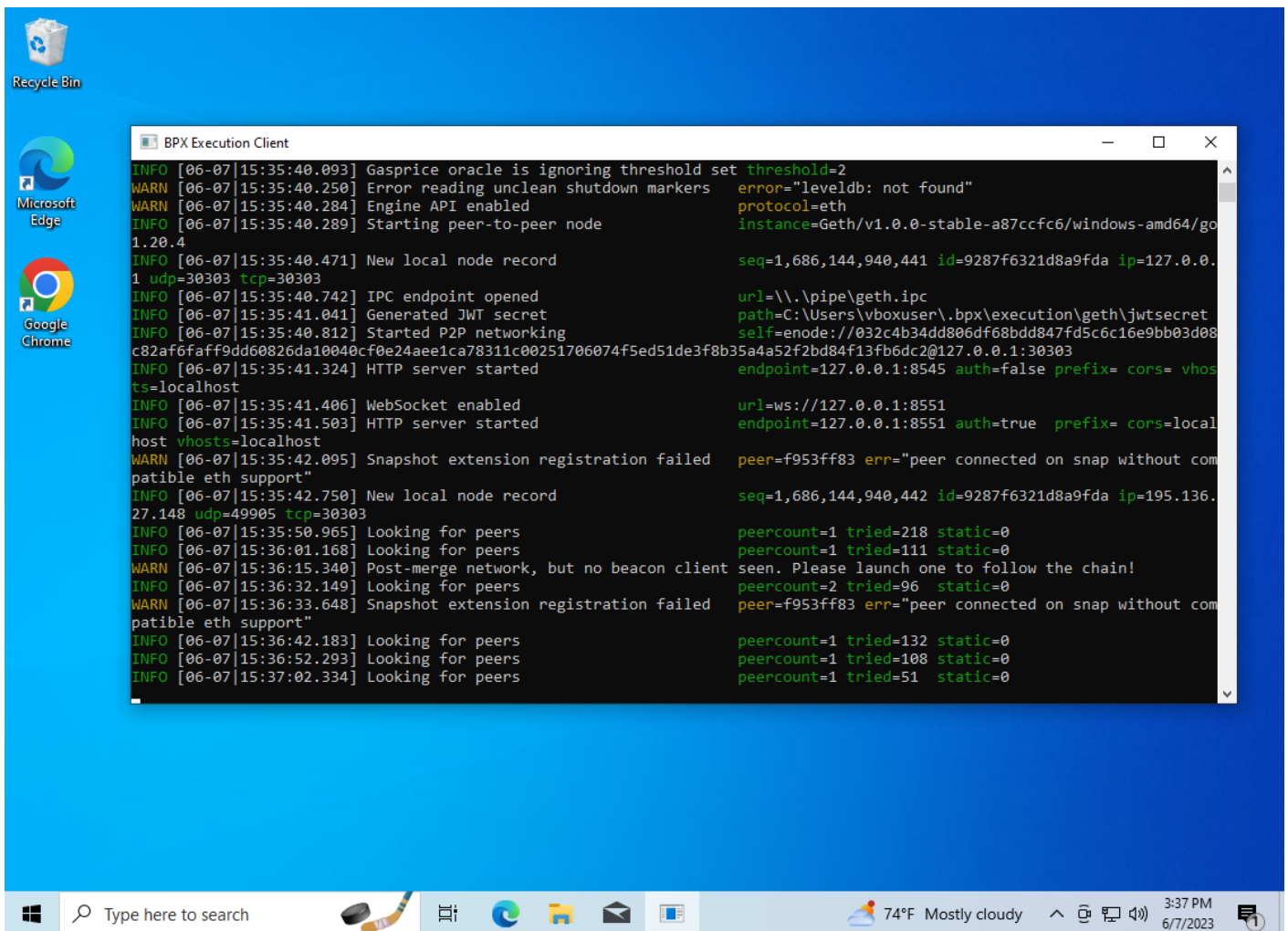
Cancel

Type here to search

74°F

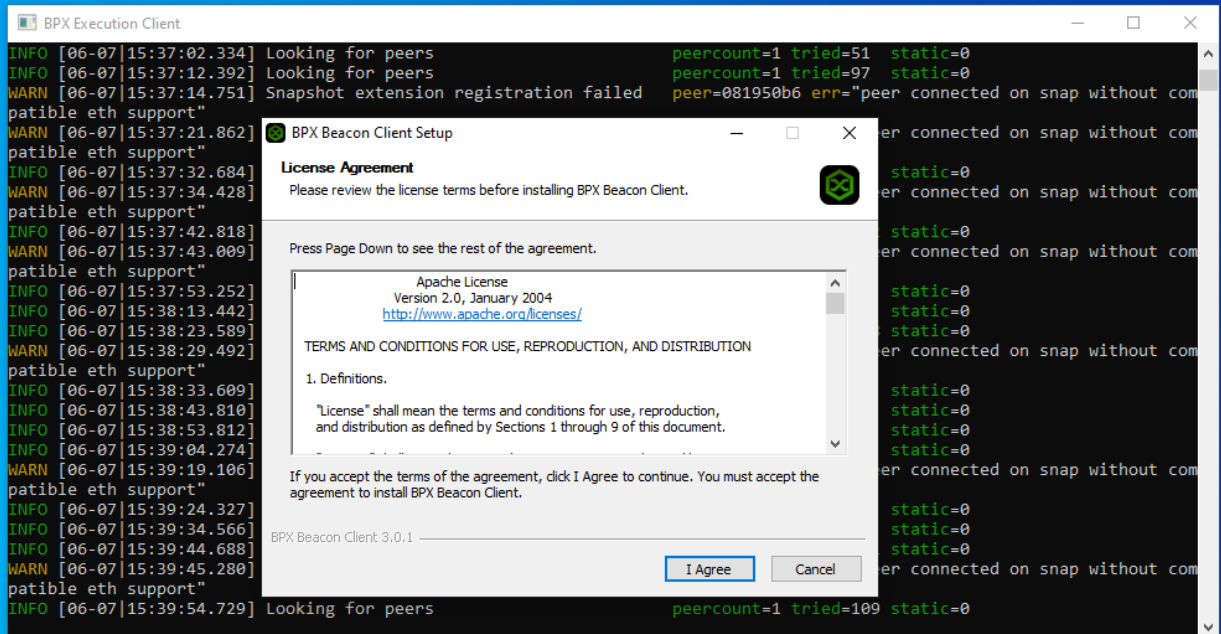
3:35 PM

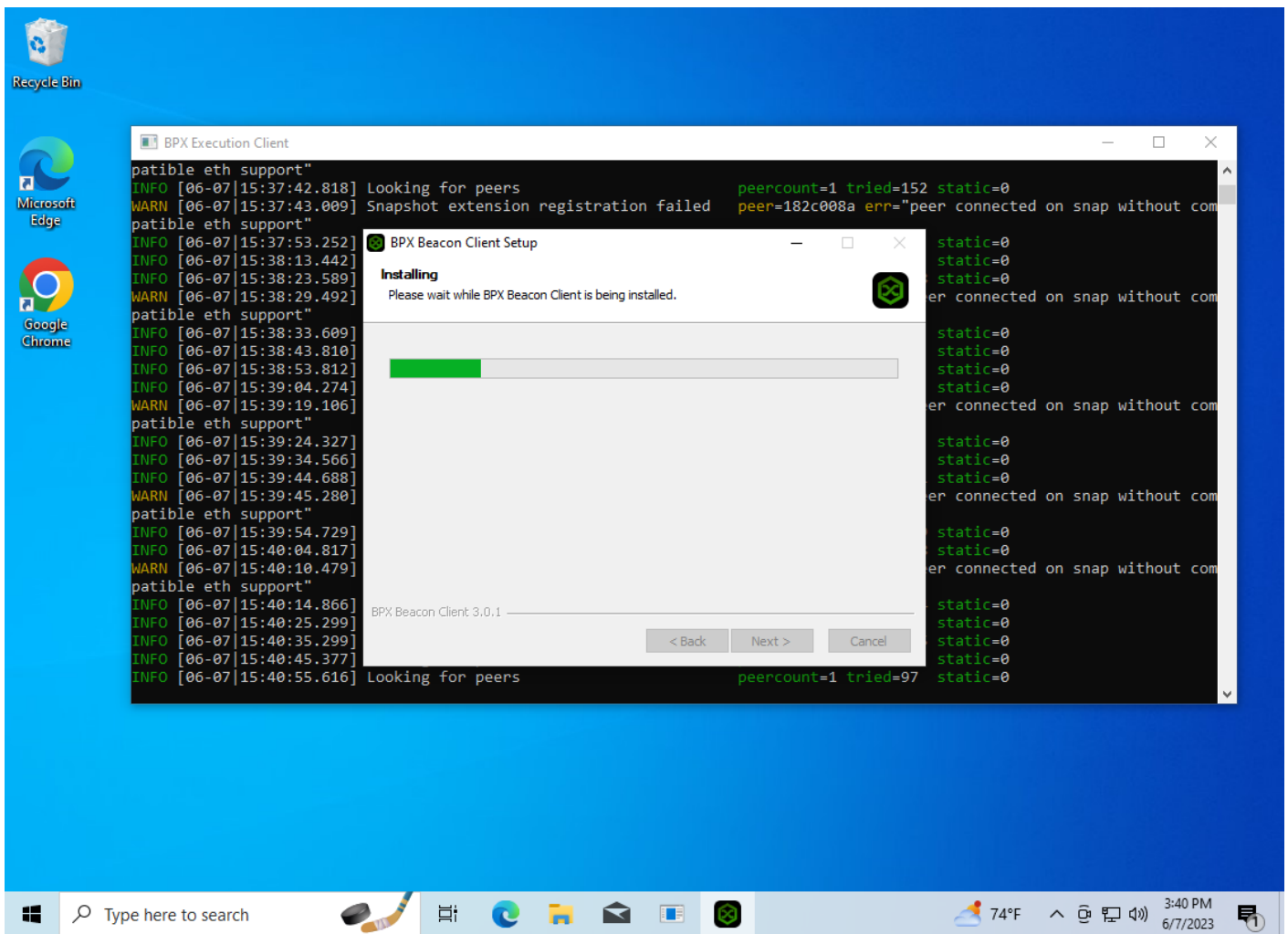
6/7/2023



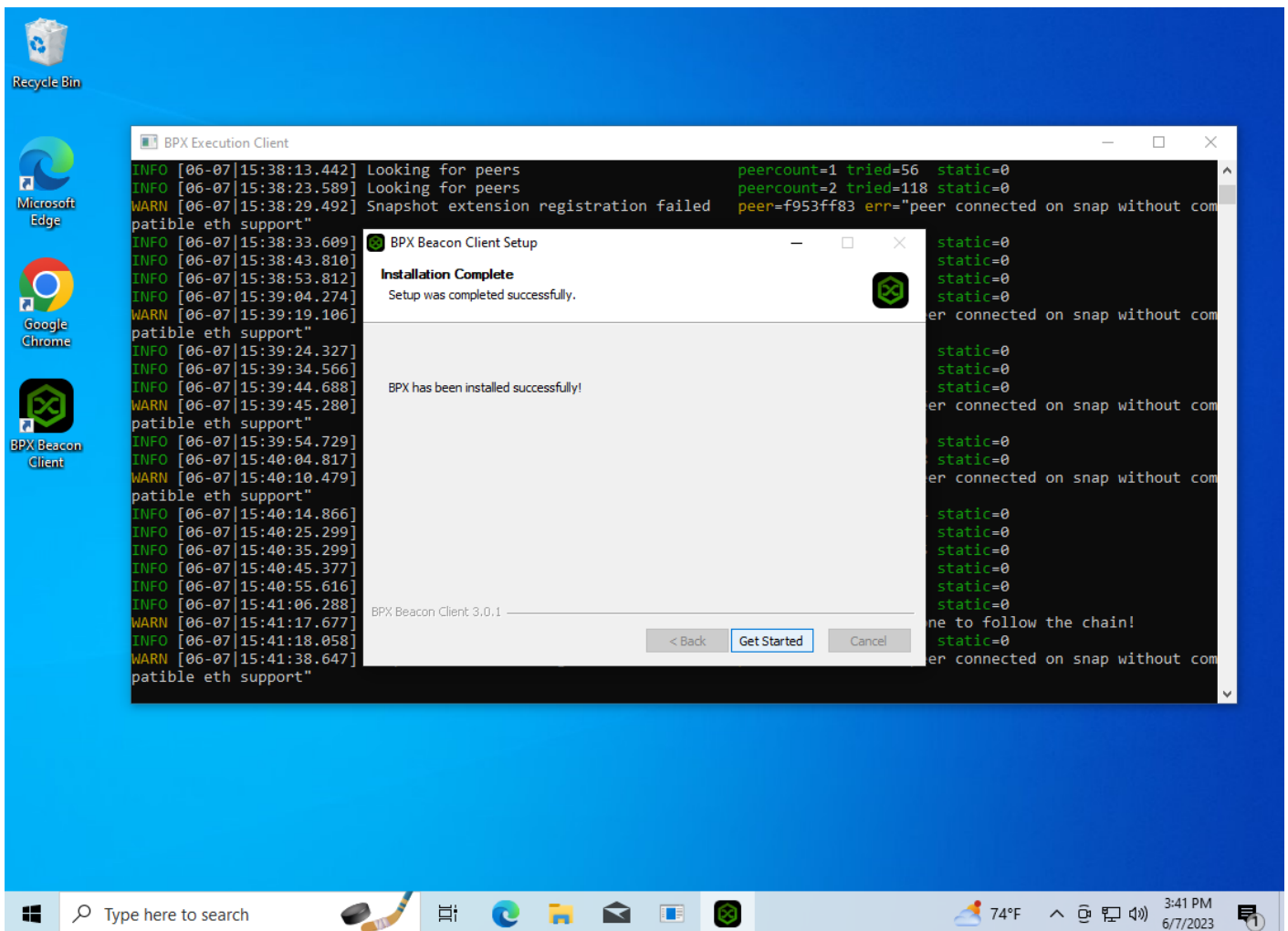
6. Now run the **Beacon Client** installer. Navigate through the Microsoft Defender pop-ups as before.

7. Accept the license agreement and proceed through the subsequent installation steps.

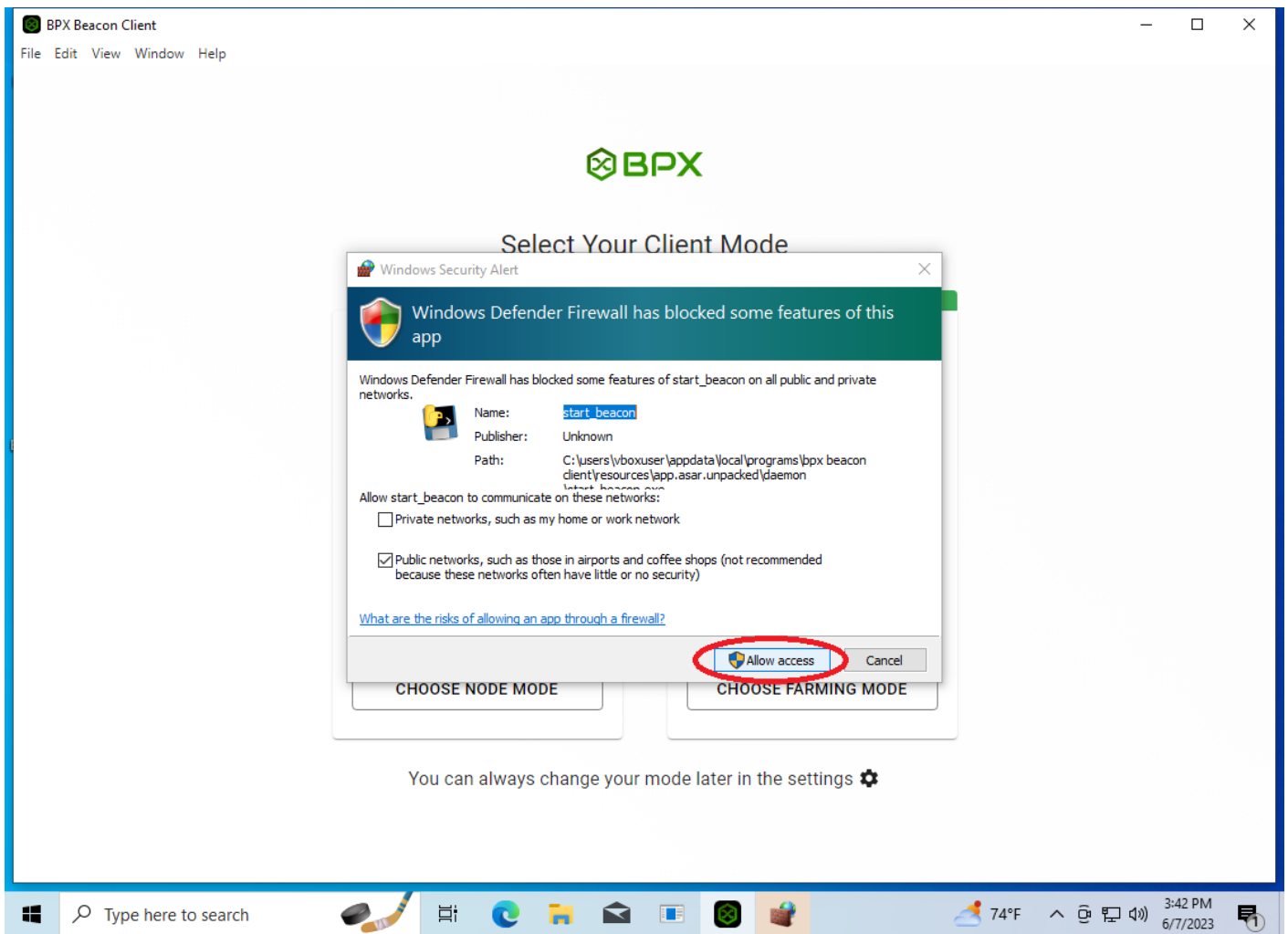




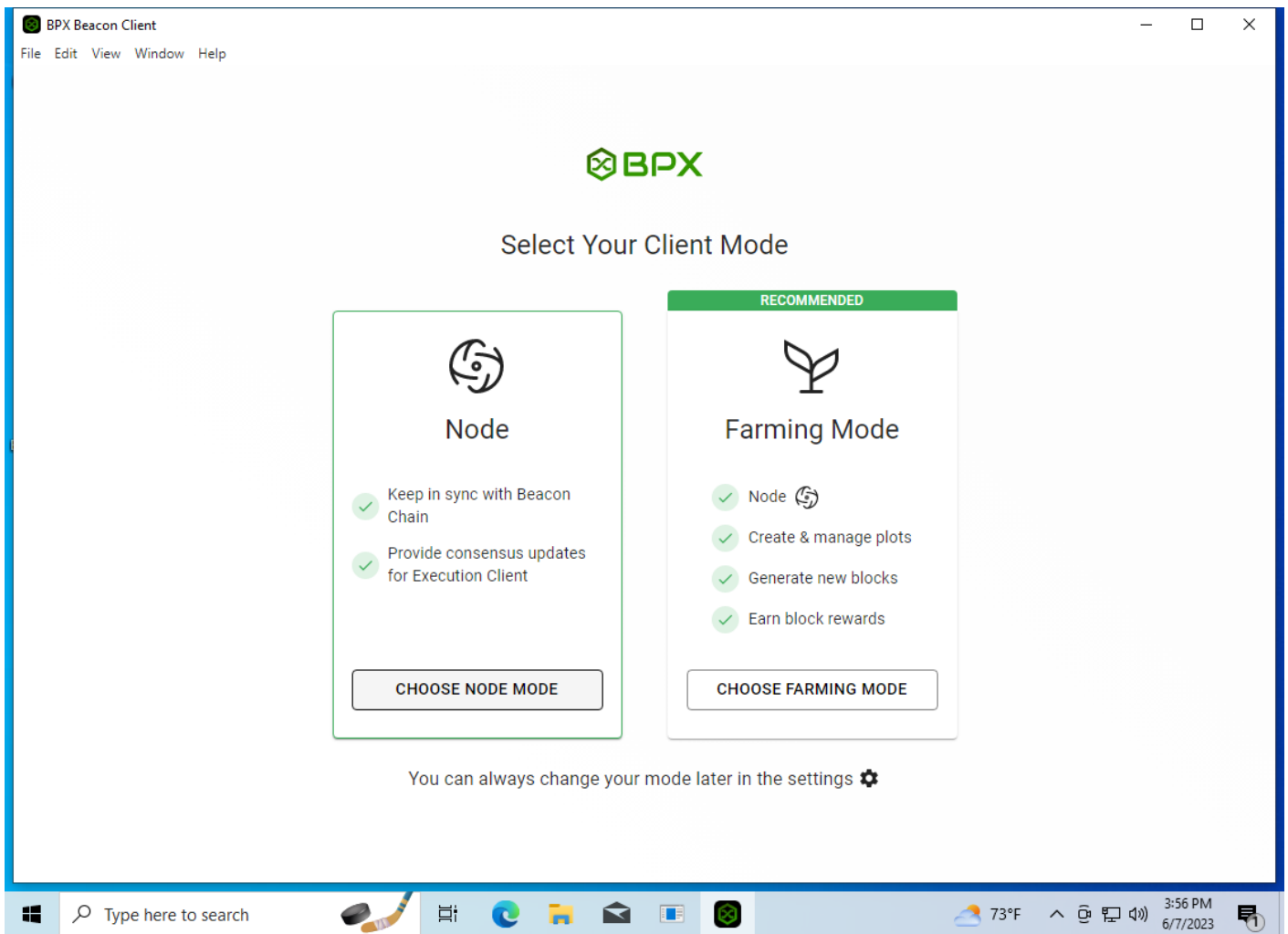
8. Once the installation is complete, click the **"Get Started"** button.



9. Allow to open the required port as before.



10. Beacon Client GUI will be launched. Select the **Node** mode.



11. At this point, both clients will begin synchronizing with the network. This process may take several hours or even days.

BPX Beacon Client

File Edit View Window Help

Beacon

Beacon Client

Status ⓘ
Syncing 1,408/74,234

Connection Status
Connected

Network Name
mainnet

Peak Height
1,408

Last Block Time ⓘ
May 25, 2023 4:30 AM

Difficulty
1

VDF Sub Slot Iterations
134,217,728

Total Iterations ⓘ
1,493,247,730

Estimated Network Space ⓘ
6.153 PiB

Blocks

Search block by header hash

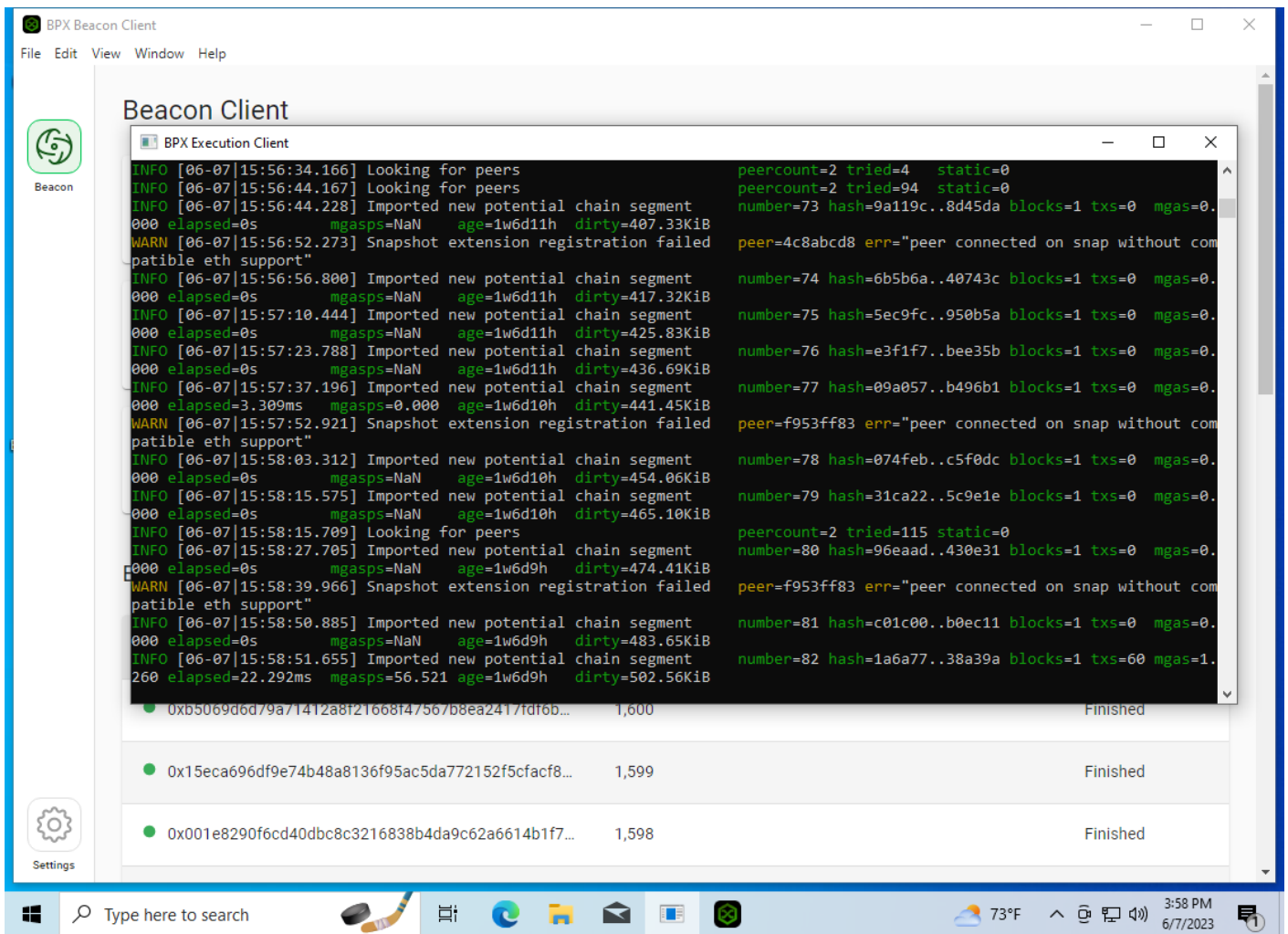
Header Hash	Height	Time Created	State
0x9aca58c32fd697ec36ba63664fa121b30ab897834609b1eb...	1,408		Finished
0xbb82883f0eb9600f64d8ea7fb6092668d7947debf73ddc06...	1,407		Finished
0x526f1b2342eacfe822a75266d0f1c7401532acbdcaee617b1...	1,406		Finished

Settings

Type here to search

73°F

3:57 PM
6/7/2023



12. Once synchronization is complete, your full node will be ready to operate.

BPX Beacon Client

File Edit View Window Help

Beacon

Settings

Beacon Client

Status ?
Synced

Connection Status
Connected

Network Name
mainnet

Peak Height
76,165

Last Block Time ?
June 8, 2023 1:46 AM

Difficulty
18

VDF Sub Slot Iterations
27,262,976

Total Iterations ?
57,430,769,622

Estimated Network Space ?
132.607 PiB

Blocks

Search block by header hash Q

Header Hash	Height	Time Created	State
● 0x3df6c06ab50787d794328465ba81687a7ea4eeed82...	76,165	June 8, 2023 1:46 AM	Finished
● 0xee4430b06c46f6b585a5463ebb924fce0586091537fa...	76,164		Finished
● 0xee1f0b2f15d936c0c30cb3daf4dc645014d336c26ded...	76,163		Finished

Activate Windows

Go to Settings to activate Windows.

Type here to search

55°F

1:46 AM

6/8/2023

Never stop the **Execution Client** by closing the console window. Instead, use the **Control + C** shortcut and wait for the client to save all data to disk and shut down gracefully.

The screenshot shows the BPX Beacon Client application window. The title bar reads "Beacon Client". The menu bar includes "File", "Edit", "View", "Window", and "Help". The main window is titled "BPX Execution Client" and displays a console log with various status messages. A large green "Control + C" overlay is positioned in the center of the console log. A red "X" mark is placed over the top-right corner of the application window. The console log contains the following text:

```
INFO [06-08|10:32:23.044] Imported new potential chain segment number=22428 hash=2725b0..c3f7ba blocks=1 txs=0 mgasps=NaN age=1m16s dirty=453.52KiB
INFO [06-08|10:32:23.213] Chain head was updated number=22428 hash=2725b0..c3f7ba root=bf9826..cc6b4b
INFO [06-08|10:32:23.396] Imported new potential chain segment number=22428 hash=0ccab1..5fca67 blocks=1 txs=0 mgasps=NaN age=1m16s dirty=453.52KiB
INFO [06-08|10:32:39.149] Imported new potential chain segment number=22429 hash=c5065a..c6aacb blocks=1 txs=0 mgasps=NaN age=1m16s dirty=454.07KiB
INFO [06-08|10:32:40.512] Chain head was updated number=22429 hash=c5065a..c6aacb root=fa8a10..c797f0
INFO [06-08|10:32:49.056] Imported new potential chain segment number=22430 hash=9bc6fd..46481a blocks=1 txs=0 mgasps=0.000 elapsed=5.076ms dirty=455.24KiB
INFO [06-08|10:33:51.774] Imported new potential chain segment number=22430 hash=ad350b..95c455 blocks=1 txs=0 mgasps=NaN age=1m12s dirty=455.24KiB
WARN [06-08|10:33:59.272] Ignoring already known beacon payload number=22430 hash=9bc6fd..46481a age=1m22s
INFO [06-08|10:34:00.417] Chain head was updated number=22430 hash=9bc6fd..46481a root=6ed0dd..714010
INFO [06-08|10:34:03.696] Looking for peers peercount=0 tried=15 static=0
INFO [06-08|10:34:03.838] Imported new potential chain segment number=22431 hash=84f95e..893285 blocks=1 txs=0 mgasps=NaN age=1m12s dirty=454.48KiB
INFO [06-08|10:34:04.329] Chain head was updated number=22431 hash=84f95e..893285 root=3ad8bb..0f4e3e
WARN [06-08|10:34:05.535] Snapshot extension registration failed peer=aa8fe93c err="peer connected on snap without compatible eth support"
INFO [06-08|10:34:11.980] Imported new potential chain segment number=22431 hash=84f95e..893285 blocks=1 txs=0 mgasps=NaN age=1m12s dirty=454.48KiB
INFO [06-08|10:34:13.765] Looking for peers peercount=0 tried=15 static=0
WARN [06-08|10:34:14.921] Snapshot extension registration failed peer=aa8fe93c err="peer connected on snap without compatible eth support"
```

Below the console log, there is a list of peers:

- 0x0cf138a6014b7e81ddb211e09da3d63ae37f499c69... 77,806 Finished
- 0x0108567661c362beaf368814c3a1b741bb42d467bd... 77,805 Finished

The Windows taskbar at the bottom shows the time as 10:34 AM on 6/8/2023, with a weather forecast of 55°F Mostly cloudy.

Installing and running BPX full node on Debian / Ubuntu

1. Log in as root. Use **wget** to download the DEB packages for the latest releases of the **Execution Client** and **Beacon Client**. Replace **X.X.X** with the latest versions tags.

```
wget "https://github.com/bpx-chain/bpx-execution-client/releases/download/X.X.X/bpx-execution-client_X.X.X+stable_amd64.deb"

wget "https://github.com/bpx-chain/bpx-beacon-client/releases/download/X.X.X/bpx-beacon-client-cli_X.X.X-1_amd64.deb"
```

```
root@debian:~# wget "https://github.com/bpx-chain/bpx-beacon-client/releases/download/1.0.0/bpx-beacon-client-cli_1.0.0-1_amd64.deb"
--2024-11-04 17:39:41-- https://github.com/bpx-chain/bpx-beacon-client/releases/download/1.0.0/bpx-beacon-client-cli_1.0.0-1_amd64.deb
Resolving github.com (github.com)... 140.82.121.4
Connecting to github.com (github.com)|140.82.121.4|:443... connected.
HTTP request sent, awaiting response... 302 Found
Location: https://objects.githubusercontent.com/github-production-release-asset-2e65be/618348613/55273968-f6c2-437f-b55a-1371f2c39993?X-Amz-Algorithm=AWS4-HMAC-SHA256&X-Amz-Credential=releaseassetproduction%2F20241104%2Fus-east-1%2Fs3%2Faws4_request&X-Amz-Date=20241104T173941Z&X-Amz-Expires=300&X-Amz-Signature=f10745db570ab391ee09256f523153676d3c73eda870a4fecaaacce5b34679bc&X-Amz-SignedHeaders=host&response-content-disposition=attachment%3B%20filename%3Dbpx-beacon-client-cli_1.0.0-1_amd64.deb&response-content-type=application%2Foctet-stream [following]
--2024-11-04 17:39:41-- https://objects.githubusercontent.com/github-production-release-asset-2e65be/618348613/55273968-f6c2-437f-b55a-1371f2c39993?X-Amz-Algorithm=AWS4-HMAC-SHA256&X-Amz-Credential=releaseassetproduction%2F20241104%2Fus-east-1%2Fs3%2Faws4_request&X-Amz-Date=20241104T173941Z&X-Amz-Expires=300&X-Amz-Signature=f10745db570ab391ee09256f523153676d3c73eda870a4fecaaacce5b34679bc&X-Amz-SignedHeaders=host&response-content-disposition=attachment%3B%20filename%3Dbpx-beacon-client-cli_1.0.0-1_amd64.deb&response-content-type=application%2Foctet-stream
Resolving objects.githubusercontent.com (objects.githubusercontent.com)... 185.199.110.133, 185.199.111.133, 185.199.108.133, ...
Connecting to objects.githubusercontent.com (objects.githubusercontent.com)|185.199.110.133|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 70692856 (67M) [application/octet-stream]
Saving to: 'bpx-beacon-client-cli_1.0.0-1_amd64.deb'

bpx-beacon-client-cli_1.0. 100%[=====>] 67.42M 1.55MB/s in 67s

2024-11-04 17:40:49 (1024 KB/s) - 'bpx-beacon-client-cli_1.0.0-1_amd64.deb' saved [70692856/70692856]

root@debian:~#
```

2. Install both packages. Replace **X.X.X** with the downloaded versions tags.

```
dpkg -i bpx-execution-client_X.X.X+stable_amd64.deb bpx-beacon-client-cli_X.X.X-1_amd64.deb
```

```
root@debian:~# dpkg -i bpx-execution-client_1.0.0+stable_amd64.deb bpx-beacon-client-cli_1.0.0-1_amd64.deb
Selecting previously unselected package bpx-execution-client.
(Reading database ... 19150 files and directories currently installed.)
Preparing to unpack bpx-execution-client_1.0.0+stable_amd64.deb ...
Unpacking bpx-execution-client (1.0.0+stable) ...
Selecting previously unselected package bpx-beacon-client-cli.
Preparing to unpack bpx-beacon-client-cli_1.0.0-1_amd64.deb ...
Unpacking bpx-beacon-client-cli (1.0.0) ...
Setting up bpx-execution-client (1.0.0+stable) ...
Setting up bpx-beacon-client-cli (1.0.0) ...
root@debian:~#
```

3. Create a new user account for BPX Chain services.

```
adduser bpxchain
```

Set a password for the new account. You can leave the additional information fields empty.

```
root@debian:~# adduser bpxchain
Adding user `bpxchain' ...
Adding new group `bpxchain' (1000) ...
Adding new user `bpxchain' (1000) with group `bpxchain (1000)' ...
Creating home directory `/home/bpxchain' ...
Copying files from `/etc/skel' ...
New password:
Retype new password:
passwd: password updated successfully
Changing the user information for bpxchain
Enter the new value, or press ENTER for the default
  Full Name []:
  Room Number []:
  Work Phone []:
  Home Phone []:
  Other []:
Is the information correct? [Y/n] Y
Adding new user `bpxchain' to supplemental / extra groups `users' ...
Adding user `bpxchain' to group `users' ...
root@debian:~#
```

4. Switch to the newly created account.


```
su - bpxchain
```

5. Initialize the Beacon Client configuration.

```
bpx init
```

```
root@debian:~# su - bpxchain
bpxchain@debian:~$ bpx init
BPX directory /home/bpxchain/.bpxchain/beacon
Can't find private CA, creating a new one in /home/bpxchain/.bpxchain/beacon to generate TLS certificates
No keys are present in the keychain. Generate them with 'bpx keys generate'

To see your keys, run 'bpx keys show --show-mnemonic-seed'
bpxchain@debian:~$
```

6. Press **Control + D** to log out and return to the root console.

7. Create a configuration file for the BPX Execution Client **systemd** service using any text editor, for example **nano**:

```
nano /etc/systemd/system/bpx-execution.service
```

Insert the following file content:

```
[Unit]
Description=BPX Execution Client

[Service]
Type=simple
User=bpxchain
ExecStart=bpx-geth --http
Restart=always
```

```
[Install]
WantedBy=multi-user.target
```

Save the file by pressing **Control + O** and close the editor with **Control + X**.

8. Follow the same procedure to create a configuration file for the Beacon Client service:

```
nano /etc/systemd/system/bpx-beacon.service
```

Insert the following file content:

```
[Unit]
Description=BPX Beacon Client

[Service]
Type=forking
User=bpxchain
ExecStart=bpx start beacon
ExecStop=bpx stop -d all
Restart=always

[Install]
WantedBy=multi-user.target
```

9. Reload the system services configuration.

```
systemctl daemon-reload
```

10. Enable automatic startup of the BPX Chain services.

```
systemctl enable bpx-execution
systemctl enable bpx-beacon
```

11. Start both services.

```
systemctl start bpx-execution
systemctl start bpx-beacon
```

```

root@debian:~# systemctl daemon-reload
root@debian:~# systemctl enable bpx-execution
Created symlink /etc/systemd/system/multi-user.target.wants/bpx-execution.service -> /etc/systemd/system/bpx-execution.service.
root@debian:~# systemctl enable bpx-beacon
Created symlink /etc/systemd/system/multi-user.target.wants/bpx-beacon.service -> /etc/systemd/system/bpx-beacon.service.
root@debian:~# systemctl start bpx-execution
root@debian:~# systemctl start bpx-beacon
root@debian:~# █

```

12. Your full node has just started and will begin the initial synchronization of the blockchain. This process may take several hours or even days. Use the following command to watch the sync status.

```

su - bpxchain
watch -n 10 bpx show -s

```

```

Every 10.0s: bpx show -s                                debian: Mon Nov  4 17:51:27 2024

Network: mainnet      Port: 6201    RPC Port: 8201
Node ID: f0757f051e8c6d48252d775e1d6ce17ae18a136c5ebefd6da2b86a0e7a9a6a51
Genesis Challenge: 511d20a74f1453a9dcf39108a854417a31ff56aa333fd64d888b584994d08dd4

Beacon Client Status: Syncing 111/40318 (40207 behind).
Execution Client Status: Syncing

Peak: Height: 111
      Hash: 6f94224352cfe10ee085dbbb89d8319ba00c3a2c492889f919f44067cc558f05
      Time: Thu Oct 31 2024 13:33:10 UTC

Estimated network space: 961.153 TiB
Current difficulty: 30
Current VDF sub_slot_iters: 1048576

Height: | Hash:
111 | 6f94224352cfe10ee085dbbb89d8319ba00c3a2c492889f919f44067cc558f05
110 | 5edf8a9e4aafe1558434ec7fcc1114cf4f2fe97243f8555132b272c3e222af0
109 | ebe4b959e64519feb5c569eb38fc0d07e01abcb1f060d5d83a8bfc4a46b52c33
108 | d124e53c65db5a051e9c3ccfb91d0c638a4c84afadab010485958dcfc0cb8e
107 | 752a4cb787b4141098790e49422b235f233e5dfca9042b567a4be7d04afe3695
106 | b4ffaba040e048ccb23430d313021c093f5ed2fafb218d6e2124fea01ce3fa4b
105 | 047c26eb19fa66973a178246c07dffeb837c8023d01f3acfa8e35dea156b3c94
104 | 0dbb254722bc9d4818df81a63329dc2060d1efe2b85d638ddfb2581d6d13475d
103 | fde0060931f5bdbc47d4daaf92633991e60b33a7382f349b3f7acff4049aae45
102 | bf4e65e1fb2e095565e65504512321fab3fad3fedda3ab016117f0142c85a7a1

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