

Wireguard VPN on Windows server

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Wireguard considered fast modern and secure VPN Tunnel

To set up the Wireguard we need two type of configuration: one is server side and another is client side.

When we want to configure the server configuration it requires the public and private key, and we have a port 51820 – wireguard listen this port by default

On Windows server:

I will make this server as a Wireguard VPN server

```
| PS C:\Users\Administrator> ipconfig

Windows IP Configuration

Ethernet adapter Ethernet:

    Connection-specific DNS Suffix  . :
    Link-local IPv6 Address . . . . . : fe80::259d:1b27:2340:5d0b%3
    IPv4 Address. . . . . : 192.168.56.108
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . : 192.168.56.1

Ethernet adapter Ethernet 2:

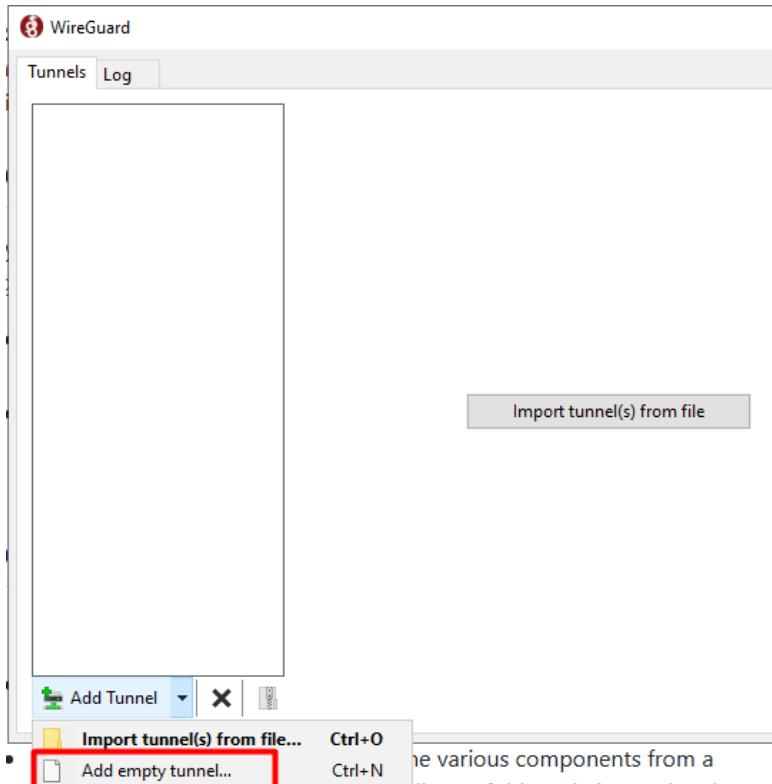
    Connection-specific DNS Suffix  . : hgu_lan
    IPv6 Address. . . . . : fd17:625c:f037:3:ed5a:8328:244:dfe6
    Link-local IPv6 Address . . . . . : fe80::ed5a:8328:244:dfe6%10
    IPv4 Address. . . . . : 10.0.3.15
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . : fe80::2%10
                                10.0.3.2

PS C:\Users\Administrator>
```

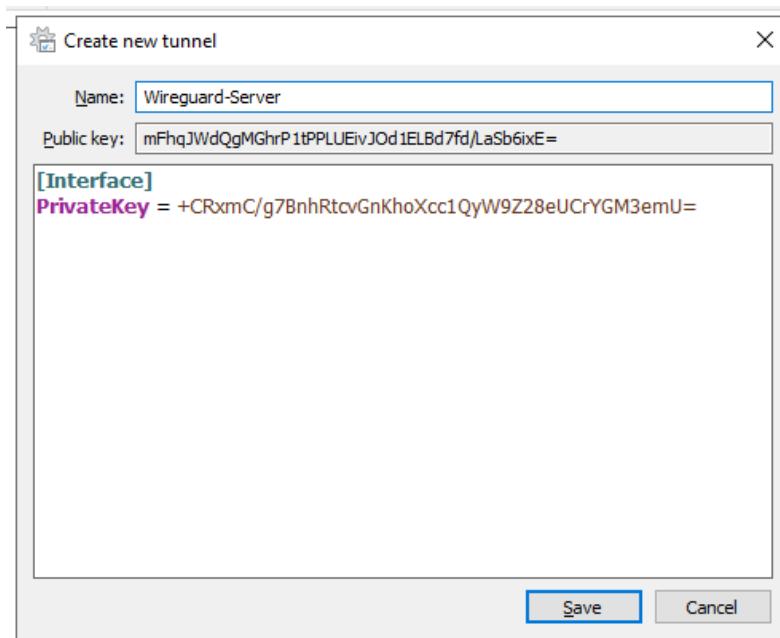
Download Wireguard

Today (1)				
 wireguard-installer	1/13/2026 6:51 PM	Application	86 KB	

Let's try to add a tunnel and I will -> Add empty tunnel



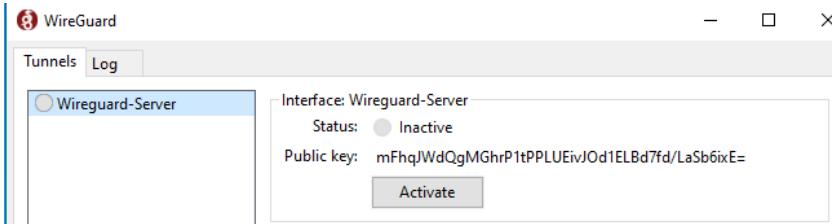
Name this tunnel as a Wireguard-Server:



Save our server public key

```
I:\11-18\CreateNewTunnel  
New Text Document (2) - Notepad  
File Edit Format View Help  
server - mFhqJWdQgMGhrP1tPPLUEivJ0d1ELBd7fd/LaSb6ixE=
```

Save



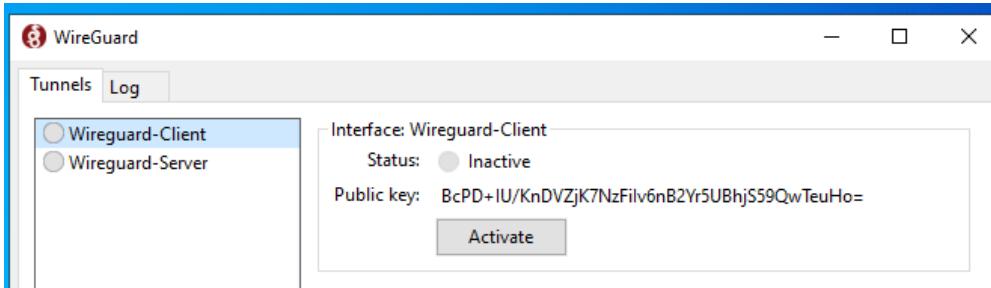
Go to empty tunnel, and now we create Wireguard-Client:

Create new tunnel
Name: Wireguard-Client
Public key: BcPD+IU/KnDVZjK7NzFiIv6nB2Yr5UBhjS59QwTeuHo=
[Interface]
PrivateKey = GCN/3l6P1AxKDcrbIcUvPAJZW6MyYuSmeM3RxcyrWVM=

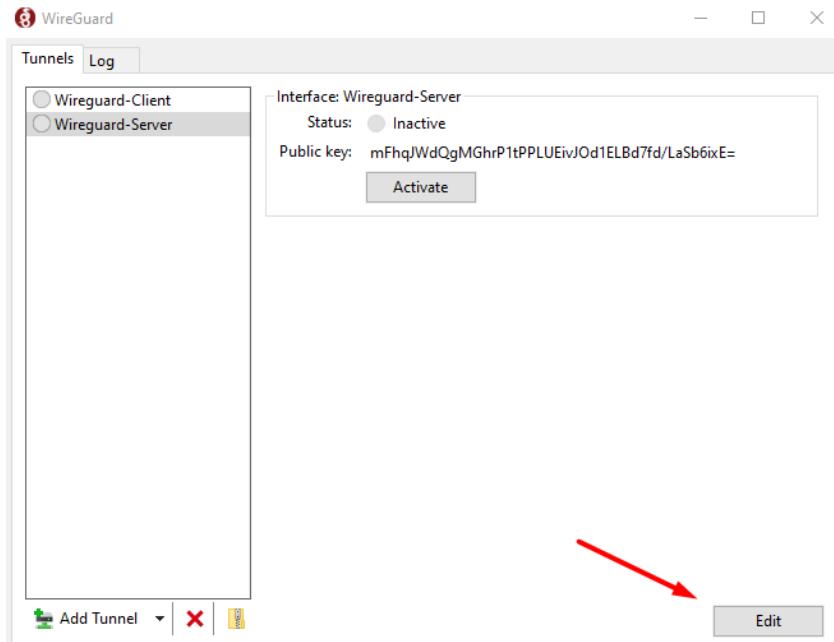
New Text Document (2) - Notepad
File Edit Format View Help
server - mFhqJWdQgMGhrP1tPPLUEivJ0d1ELBd7fd/LaSb6ixE=

client - BcPD+IU/KnDVZjK7NzFiIv6nB2Yr5UBhjS59QwTeuHo=

And we have created public and private keys for server and client



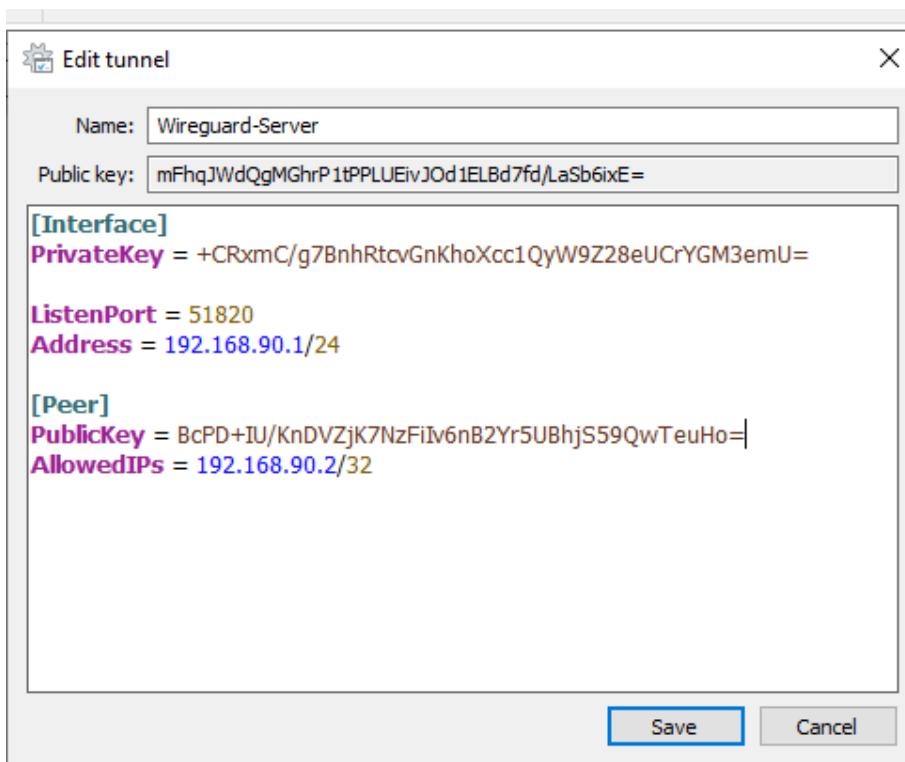
Let's complete server configuration. Click on the Edit:



Settings for Wireguard server:

PublicKey – public key of the client

AllowdIPs – will be the first ip will be assigned to the first client which will connected to the server



Now, Client settings:

Endpoint that's is our public ip and already the port forwarded

Название: Wireguard-Client
Публичный ключ: BcPD+IU/KnDVZjK7NzFiIv6nB2Yr5UBhjS59QwTeuHo=

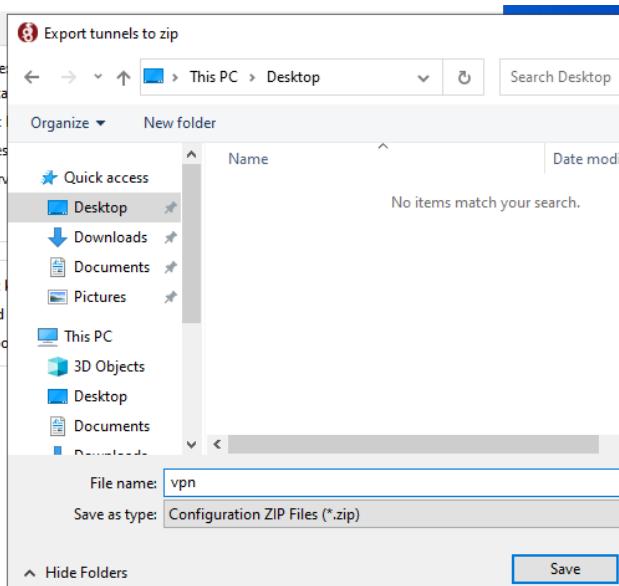
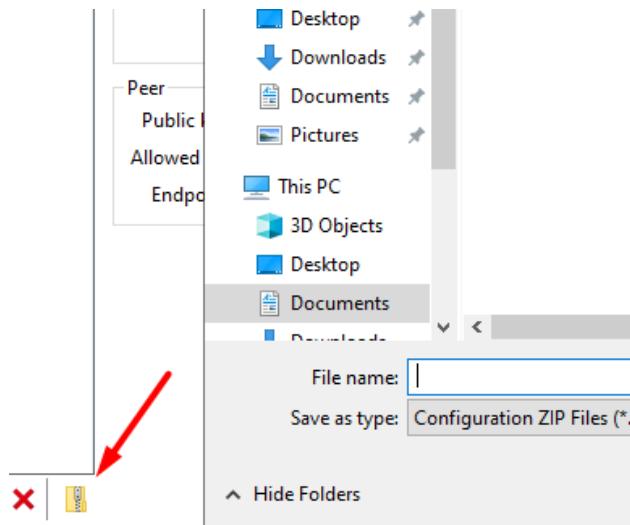
[Interface]

PrivateKey = GCN/3l6P1AxKDcrbIcUvPAJZW6MyYuSmeM3RxcyrWVM=
Address = 192.168.90.2/24
DNS = 8.8.8.8, 8.8.4.4

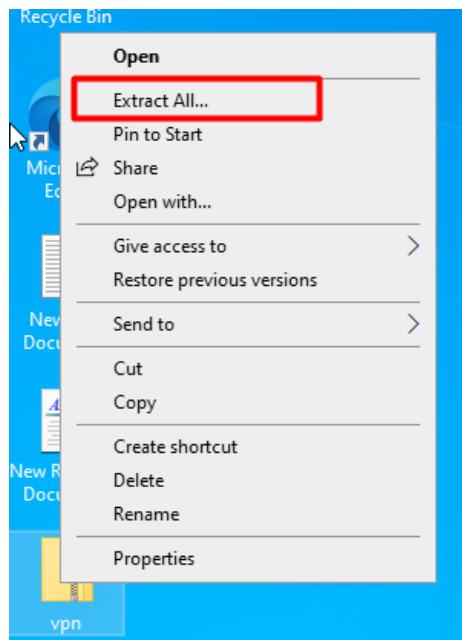
[Peer]

PublicKey = mFhqJWdQgMGhrP1tPPLUEivJOd1ELBd7fd/LaSb6ixE=
AllowedIPs = 0.0.0.0/0
Endpoint = 192.168.56.108:51820

Now export the configuration



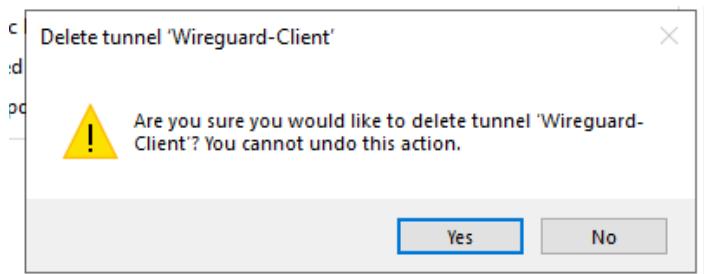
Extract it



And we just need Client.conf - > copy it

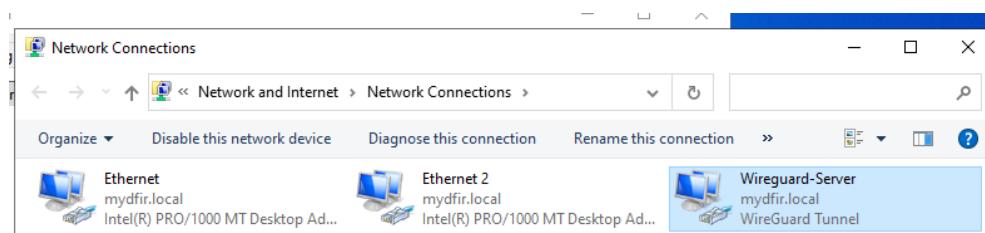


Now we can Remove Client

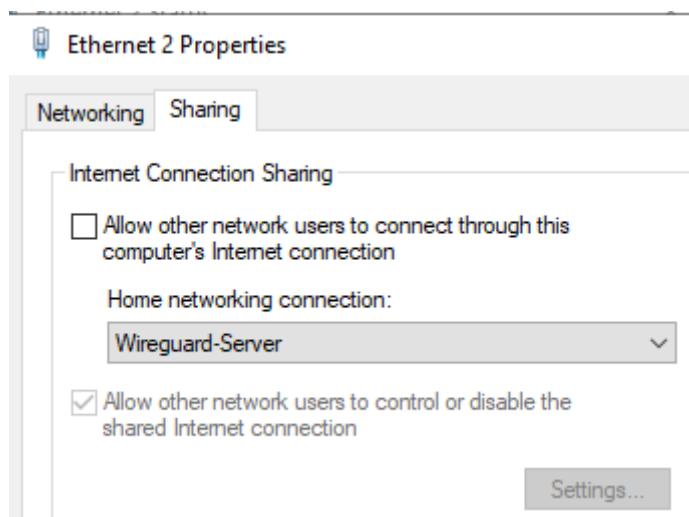


And Activate Server

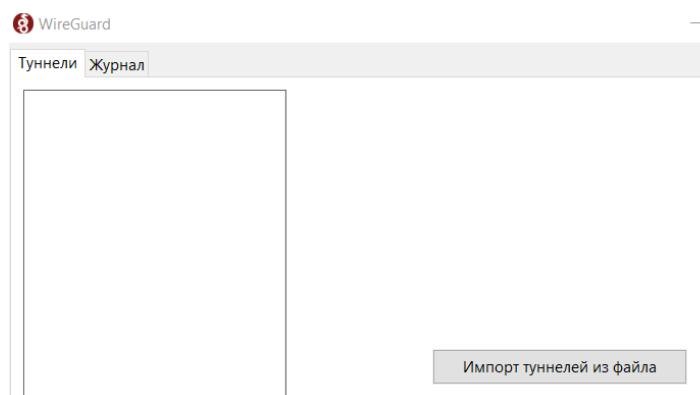
Here we have wireguard adapter



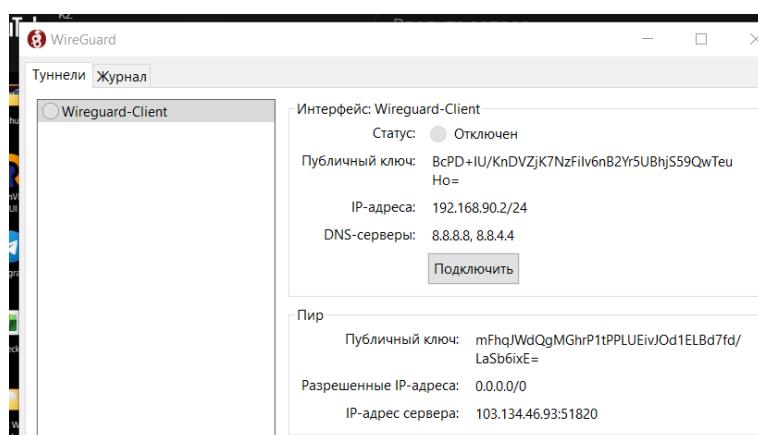
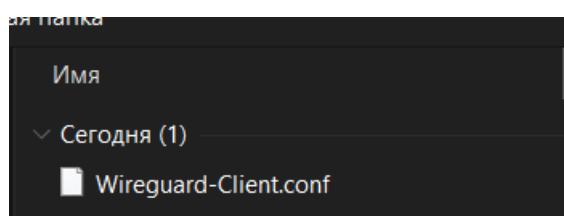
Properties -> Sharing -> connection -> Wireguard-Server



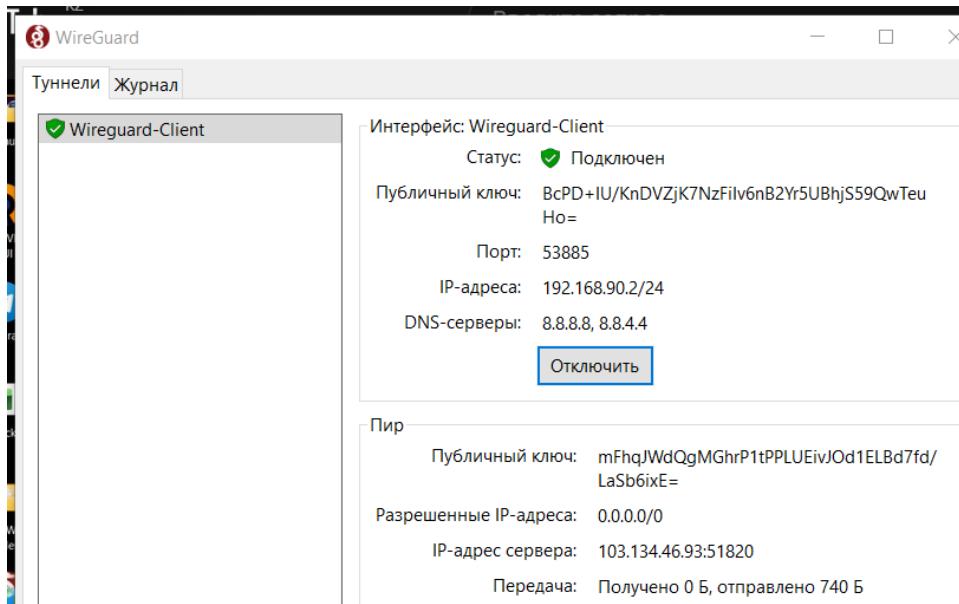
Go to Client and Open Wireguard:



Click on the Import file and choose our client.conf file



Activate it



Go to the Logs:

```
5-01-13 20:32:00.527 [TUN] [Wireguard-Client] Startup complete
5-01-13 20:32:00.532 [TUN] [Wireguard-Client] Sending handshake initiation to peer 1 (192.168.56.108:51820)
5-01-13 20:32:00.534 [TUN] [Wireguard-Client] Receiving handshake response from peer 1 (192.168.56.108:51820)
5-01-13 20:32:00.534 [TUN] [Wireguard-Client] Keypair 1 created for peer 1
5-01-13 20:32:10.572 [TUN] [Wireguard-Client] Receiving keepalive packet from peer 1 (192.168.56.108:51820)
5-01-13 20:32:21.278 [TUN] [Wireguard-Client] Receiving keepalive packet from peer 1 (192.168.56.108:51820)
```

So everything is work!

```
PS C:\Windows\system32> ping 192.168.90.1

Обмен пакетами с 192.168.90.1 по с 32 байтами данных:
Ответ от 192.168.90.1: число байт=32 время<1мс TTL=128
Ответ от 192.168.90.1: число байт=32 время<1мс TTL=128
Ответ от 192.168.90.1: число байт=32 время<1мс TTL=128
Ответ от 192.168.90.1: число байт=32 время=1мс TTL=128

Статистика Ping для 192.168.90.1:
    Пакетов: отправлено = 4, получено = 4, потеряно = 0
              (0% потеря)
Приблизительное время приема-передачи в мс:
    Минимальное = 0мсек, Максимальное = 1 мсек, Среднее = 0 мсек
PS C:\Windows\system32>
```

