Matrix AI Network Port 50505 Opening Guide

Foreword

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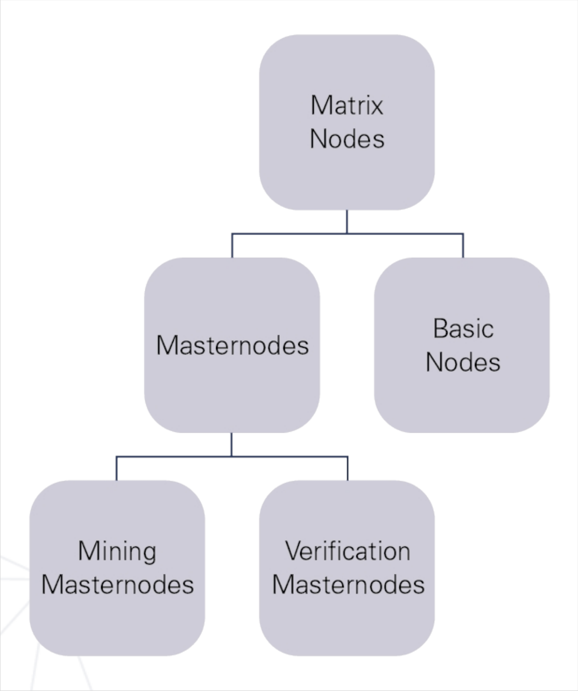
Thank you for supporting the Matrix AI Network by choosing to become a node! This article details how to open port 50505 to ensure the normal operation of your Matrix AI Network Masternode.

Matrix AI Network Nodes: A Brief Introduction

The Matrix AI Network supports two types of nodes: Basic nodes and Masternodes. Basic nodes allow users to sync with the blockchain data. There are two types of Matrix Masternodes: Mining and Verification Masternodes. Both are responsible for maintaining the normal operation of the Matrix blockchain – namely, packaging and verifying transactions.



Port 50505

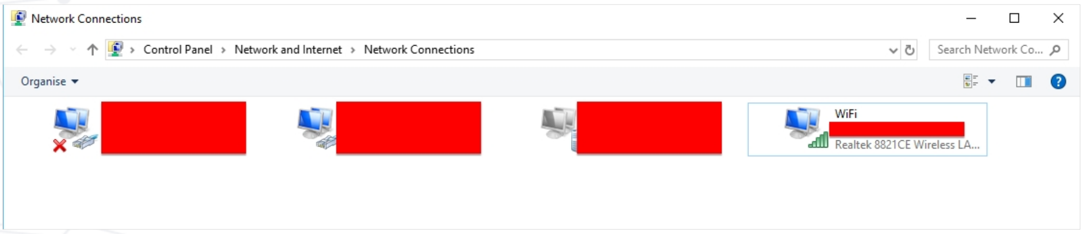
To guarantee the normal operation of your Matrix Masternode, you need to ensure that you have opened Port 50505.

There are many ways to check if an individual port is open. One method is to use an online tool such as You Get Signal: https://www.yougetsignal.com/tools/open-ports/

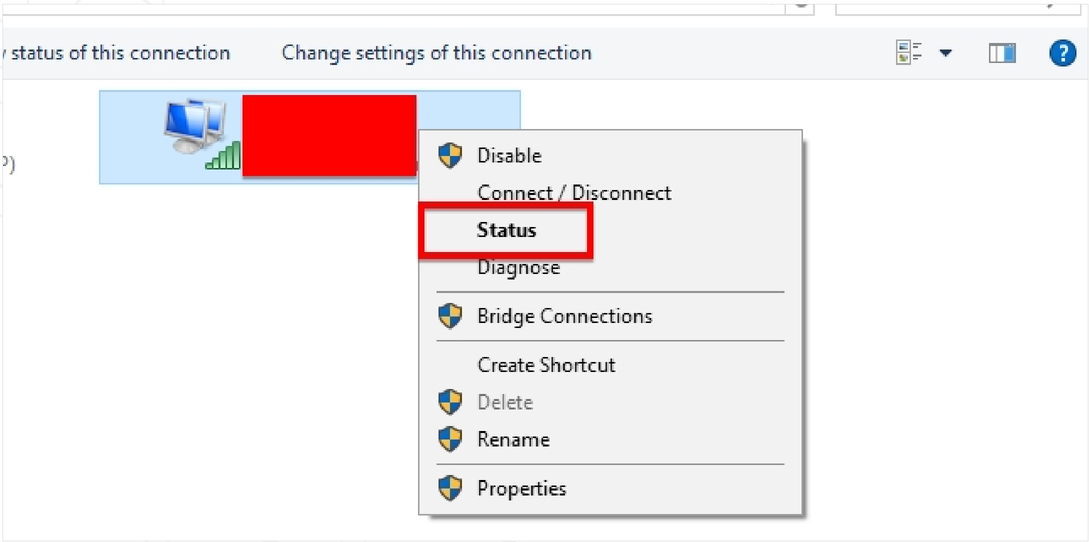
To verify if Port 50505 is open, you will need the IP address associated with your Matrix Masternode. Luckily, finding this IP is simple. Tools like You Get Signal often will automatically detect your machine's IP address. If, for whatever reason, your IP address is not automatically detected, you may need to find it manually.

Find your IP Address on Windows

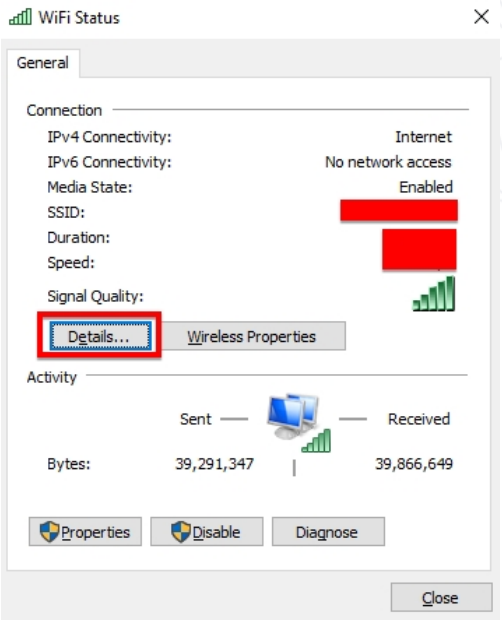
1. Open you “Network Connections”.



2. Right click on your active network, and select “Status”. A new window will pop up.



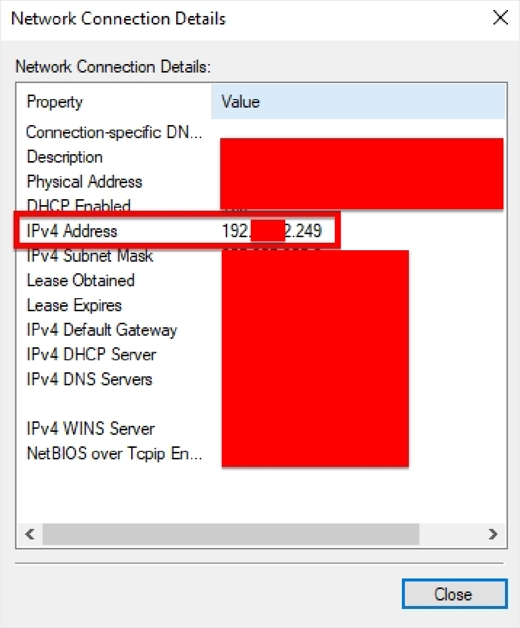
3. Click “Details…”. A new window will pop up.



IPv4 Connectivity: Internet
IPv6 Connectivity: No network access
Media State: Enabled
SSID: [redacted]
Duration: [redacted]
Speed:
Signal Quality:

Bytes: 39,291,347 | 39,866,649

4. Your machine's IP address can be found next to IPv4 Address.



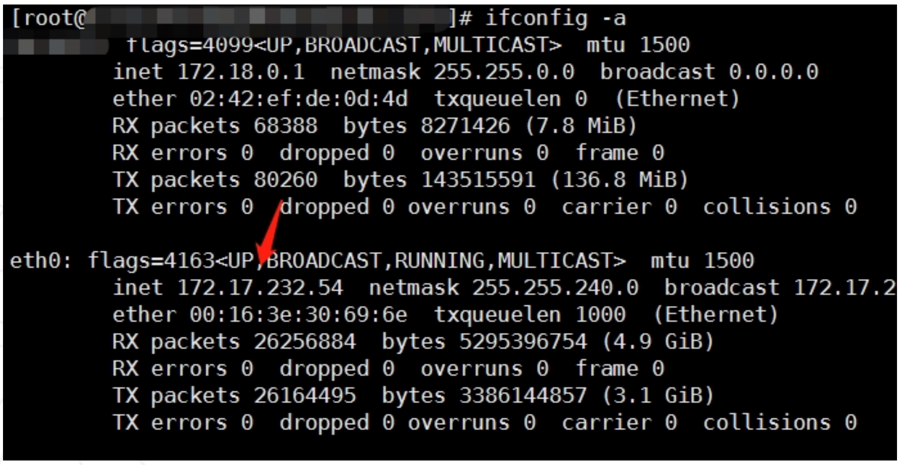
Network Connection Details

Network Connection Details:

Property	Value
Connection-specific DN...	
Description	[redacted]
Physical Address	[redacted]
DHCP Enabled	[redacted]
IPv4 Address	192.[redacted]2.249
IPv4 Subnet Mask	[redacted]
Lease Obtained	[redacted]
Lease Expires	[redacted]
IPv4 Default Gateway	[redacted]
IPv4 DHCP Server	[redacted]
IPv4 DNS Servers	[redacted]
IPv4 WINS Server	[redacted]
NetBIOS over Tcpip En...	[redacted]

Find your IP Address on a MAC

1. **Open your Terminal.**
2. **Type "sudo ifconfig –a", while omitting the apostrophes. Click Enter. Your machine's IP address can be found in the "eth0" section.**

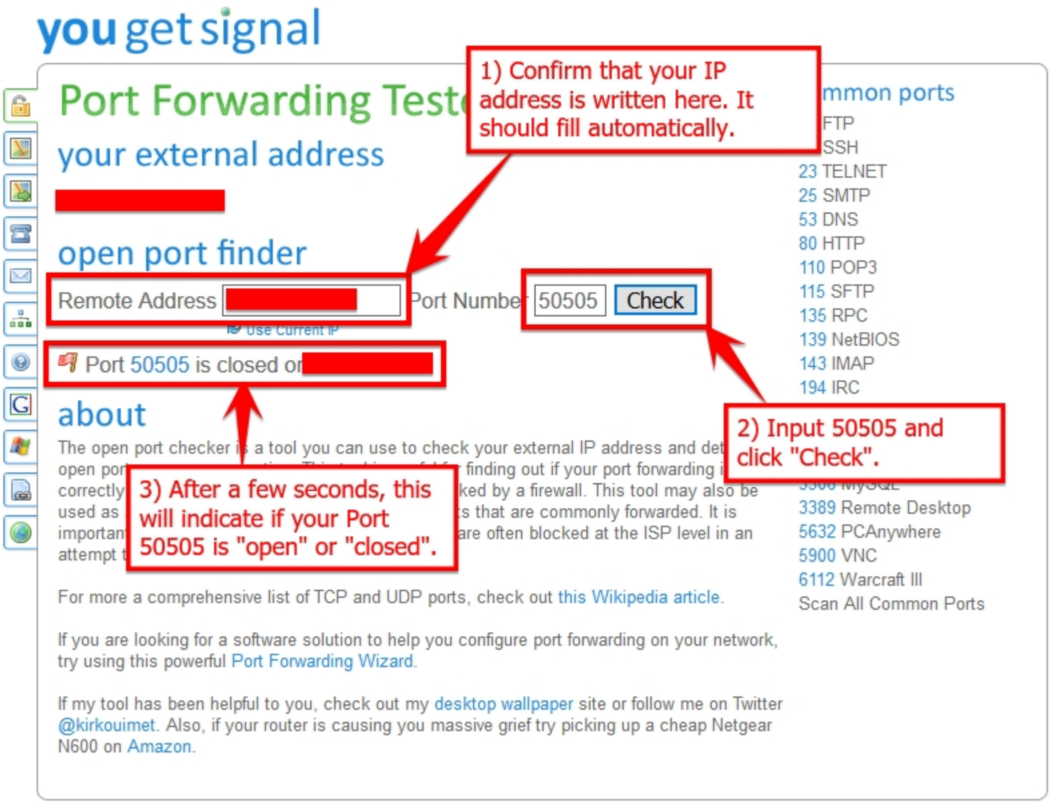


```
[root@[redacted]]# ifconfig -a
[redacted]  flags=4099<UP,BROADCAST,MULTICAST>  mtu 1500
        inet 172.18.0.1  netmask 255.255.0.0  broadcast 0.0.0.0
        ether 02:42:ef:de:0d:4d  txqueuelen 0  (Ethernet)
        RX packets 68388  bytes 8271426 (7.8 MiB)
        RX errors 0  dropped 0  overruns 0  frame 0
        TX packets 80260  bytes 143515591 (136.8 MiB)
        TX errors 0  dropped 0 overruns 0  carrier 0  collisions 0

eth0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST>  mtu 1500
        inet 172.17.232.54  netmask 255.255.240.0  broadcast 172.17.2
        ether 00:16:3e:30:69:6e  txqueuelen 1000  (Ethernet)
        RX packets 26256884  bytes 5295396754 (4.9 GiB)
        RX errors 0  dropped 0  overruns 0  frame 0
        TX packets 26164495  bytes 3386144857 (3.1 GiB)
        TX errors 0  dropped 0 overruns 0  carrier 0  collisions 0
```

If you decide to use You Get Signal, simply click the link above, confirm that your IP address was automatically detected, enter 50505 next to "Port Number" and click "Check." After a few seconds, you will be told whether or not Port 50505 is open.

If Port 50505 is already open, you may ignore the rest of this guide. If Port 50505 is closed, read on!



you get signal

Port Forwarding Teste

your external address

[redacted]

open port finder

Remote Address [redacted]

Use Current IP

Port Numbe 50505 Check

Port 50505 is closed on [redacted]

about

The open port checker i a tool you can use to check your external IP address and det
open por
correctly
used as
importan
attempt t

finding out if your port forwarding i
ked by a firewall. This tool may also be
s that are commonly forwarded. It is
are often blocked at the ISP level in an

For more a comprehensive list of TCP and UDP ports, check out this Wikipedia article.

If you are looking for a software solution to help you configure port forwarding on your network, try using this powerful Port Forwarding Wizard.

If my tool has been helpful to you, check out my desktop wallpaper site or follow me on Twitter @kirkouimet. Also, if your router is causing you massive grief try picking up a cheap Netgear N600 on Amazon.

mmon ports
FTP
SSH
23 TELNET
25 SMTP
53 DNS
80 HTTP
110 POP3
115 SFTP
135 RPC
139 NetBIOS
143 IMAP
194 IRC
3389 Remote Desktop
5632 PCAnywhere
5900 VNC
6112 Warcraft III
Scan All Common Ports

1) Confirm that your IP address is written here. It should fill automatically.

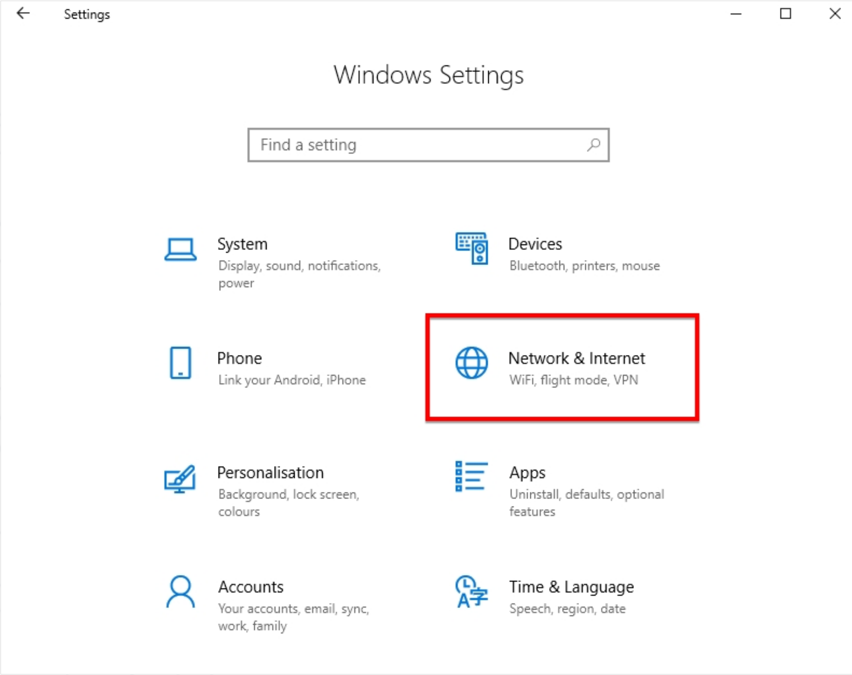
2) Input 50505 and click "Check".

3) After a few seconds, this will indicate if your Port 50505 is "open" or "closed".

Opening Port 50505 on your Windows 10 PC

Note: The process described below will be similar with older versions of Windows.

1. Open Windows Settings and click “Network & Internet”



Settings

Windows Settings

Find a setting

System
Display, sound, notifications, power

Devices
Bluetooth, printers, mouse

Phone
Link your Android, iPhone

Network & Internet
WiFi, flight mode, VPN

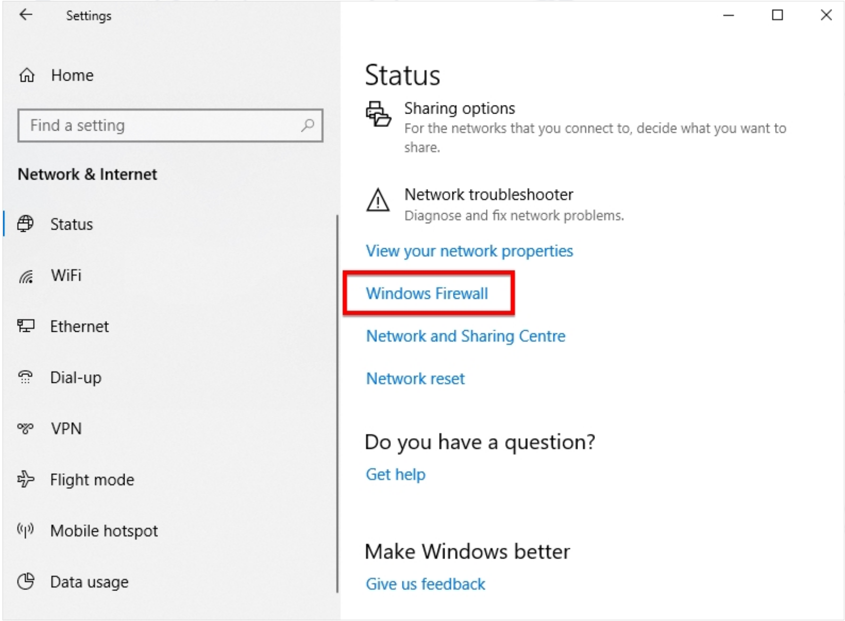
Personalisation
Background, lock screen, colours

Apps
Uninstall, defaults, optional features

Accounts
Your accounts, email, sync, work, family

Time & Language
Speech, region, date

2. Scroll down and click “Windows Firewall”. A new window will pop up.



Settings

Home

Find a setting

Network & Internet

Status

WiFi

Ethernet

Dial-up

VPN

Flight mode

Mobile hotspot

Data usage

Status

Sharing options
For the networks that you connect to, decide what you want to share.

Network troubleshooter
Diagnose and fix network problems.

View your network properties

Windows Firewall

Network and Sharing Centre

Network reset

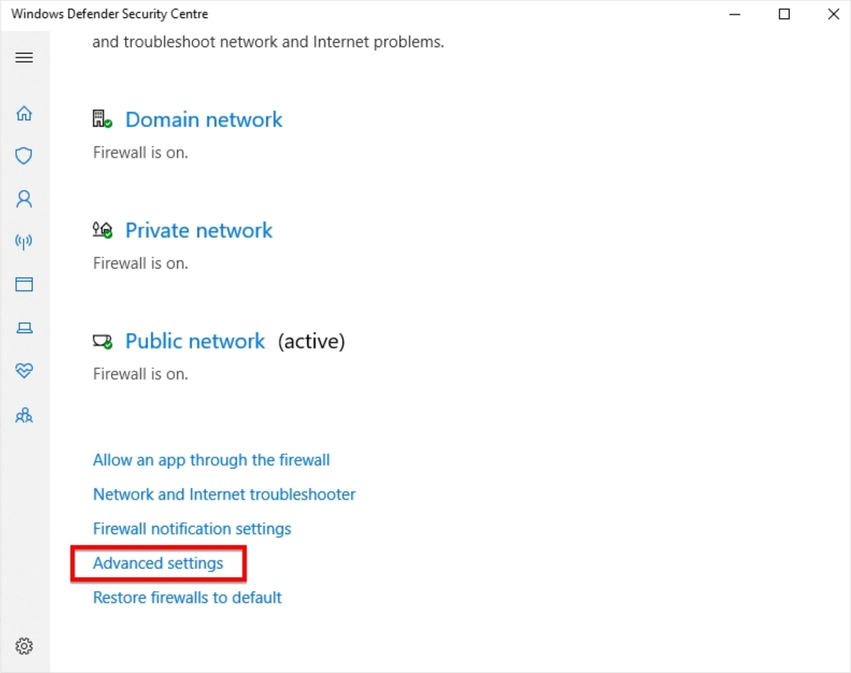
Do you have a question?

Get help

Make Windows better

Give us feedback

3. Find and click “Advanced settings.” A new window will pop up.



Windows Defender Security Centre

and troubleshoot network and Internet problems.

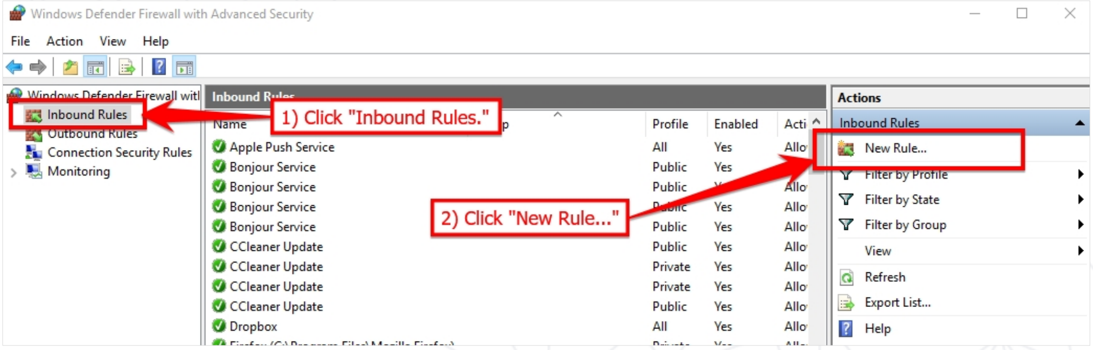
Domain network
Firewall is on.

Private network
Firewall is on.

Public network (active)
Firewall is on.

Allow an app through the firewall
Network and Internet troubleshooter
Firewall notification settings
Advanced settings
Restore firewalls to default

4. First, click “Inbound Rules.” Then, click “New Rule…” A new window will pop up.

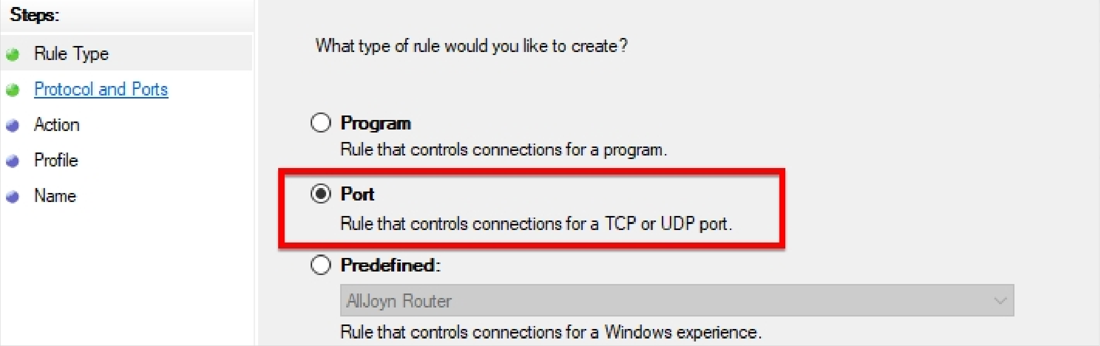


Windows Defender Firewall with Advanced Security

Inbound Rules

Name	Profile	Enabled	Acti
Apple Push Service	All	Yes	Allo
Bonjour Service	Public	Yes	Allo
Bonjour Service	Public	Y	Allo
Bonjour Service	Public	Yes	Allo
Bonjour Service	Public	Yes	Allo
CCleaner Update	Public	Yes	Allo
CCleaner Update	Private	Yes	Allo
CCleaner Update	Private	Yes	Allo
CCleaner Update	Public	Yes	Allo
Dropbox	All	Yes	Allo

5. Select “Port”, click “Next.



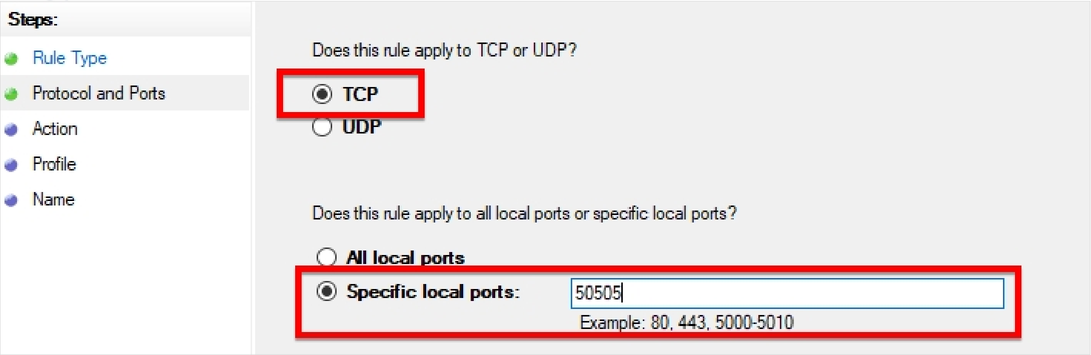
What type of rule would you like to create?

○ **Program**
Rule that controls connections for a program.

● **Port**
Rule that controls connections for a TCP or UDP port.

○ **Predefined:**
AllJoyn Router
Rule that controls connections for a Windows experience.

6. Select “TCP”, select “Specific local ports:”, enter “50505”, click “Next.



Does this rule apply to TCP or UDP?

● TCP

○ UDP

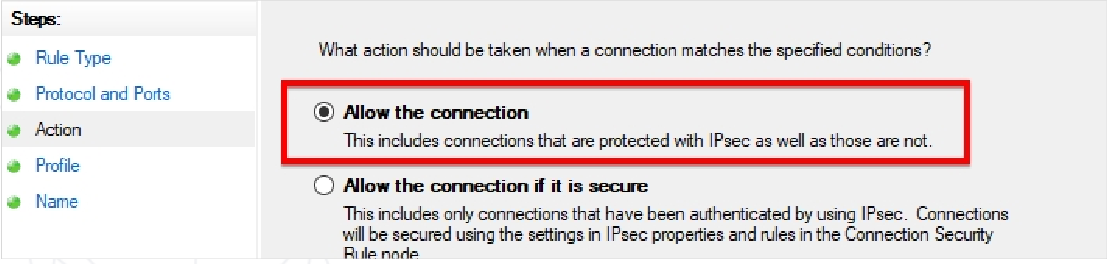
Does this rule apply to all local ports or specific local ports?

○ All local ports

● Specific local ports: 50505

Example: 80, 443, 5000-5010

7. Select “Allow the connection”, click “Next.



What action should be taken when a connection matches the specified conditions?

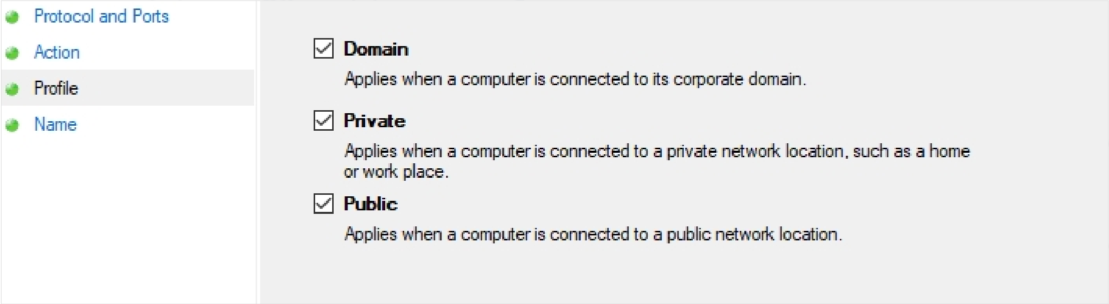
● Allow the connection

This includes connections that are protected with IPsec as well as those are not.

○ Allow the connection if it is secure

This includes only connections that have been authenticated by using IPsec. Connections will be secured using the settings in IPsec properties and rules in the Connection Security Rule node.

8. Select “Domain”, “Private” and “Public”, click “Next.



☑ Domain

Applies when a computer is connected to its corporate domain.

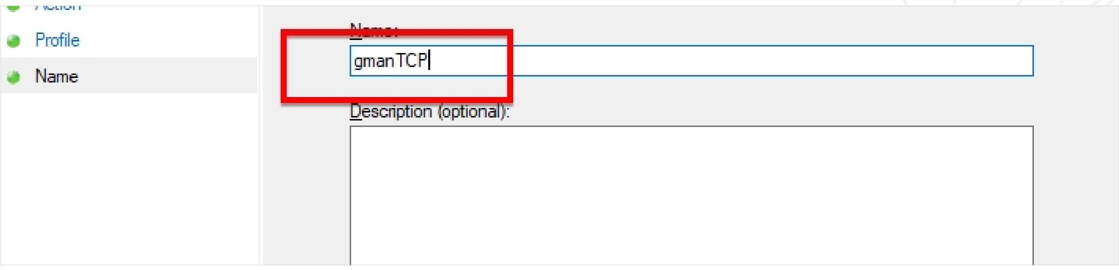
☑ Private

Applies when a computer is connected to a private network location, such as a home or work place.

☑ Public

Applies when a computer is connected to a public network location.

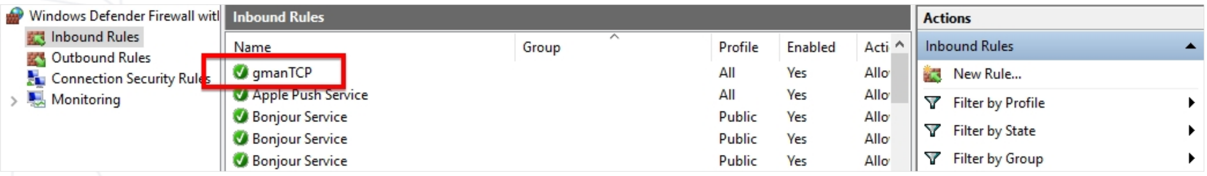
9. Name the new rule “gmanTCP”. No description is necessary. Click “Finish”.



Name: gmanTCP

Description (optional):

10. Your newly-created rule will appear in the Inbound Rules list.



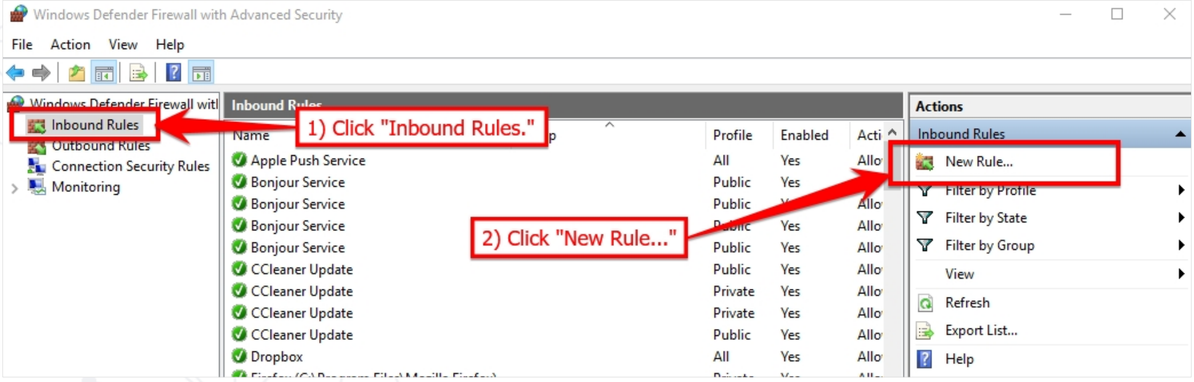
Windows Defender Firewall wit
- Inbound Rules
- Outbound Rules
- Connection Security Rules
- Monitoring

Inbound Rules

Name	Group	Profile	Enabled	Acti
gmanTCP		All	Yes	Allo
Apple Push Service		All	Yes	Allo
Bonjour Service		Public	Yes	Allo
Bonjour Service		Public	Yes	Allo
Bonjour Service		Public	Yes	Allo

Actions
- Inbound Rules
- New Rule...
- Filter by Profile
- Filter by State
- Filter by Group

11. Next, we will create the second new Inbound Rule. The process is identical to the previous one. The only difference is that we will select "UDP" rather than "TCP". Click "Inbound Rules." Then, click "New Rule…" A new window will pop up.



Windows Defender Firewall with Advanced Security

File Action View Help

Windows Defender Firewall wit
- Inbound Rules
- Outbound Rules
- Connection Security Rules
- Monitoring

1) Click "Inbound Rules."

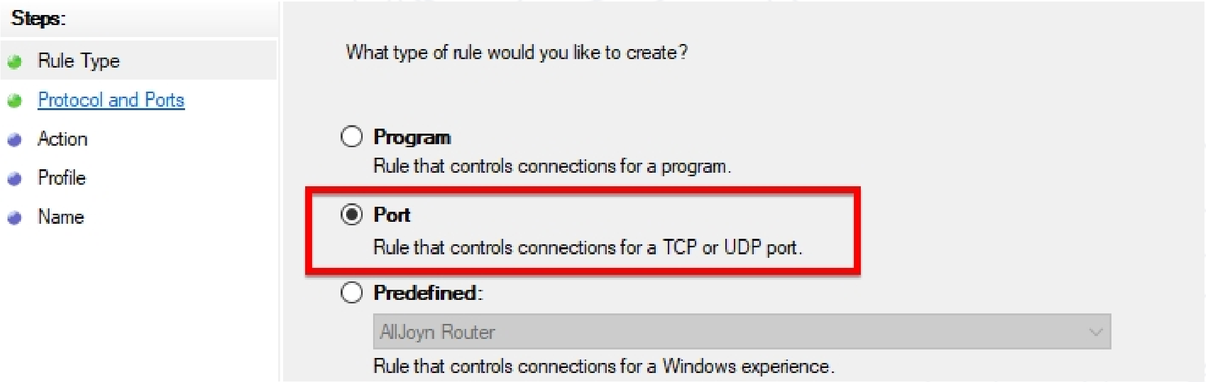
2) Click "New Rule..."

Inbound Rules

Name	Group	Profile	Enabled	Acti
Apple Push Service		All	Yes	Allo
Bonjour Service		Public	Yes	
Bonjour Service		Public		Allo
Bonjour Service		Public	Yes	Allo
Bonjour Service		Public	Yes	Allo
CCleaner Update		Public	Yes	Allo
CCleaner Update		Private	Yes	Allo
CCleaner Update		Private	Yes	Allo
CCleaner Update		Public	Yes	Allo
Dropbox		All	Yes	Allo

Actions
- Inbound Rules
- New Rule...
- Filter by Profile
- Filter by State
- Filter by Group
- View
- Refresh
- Export List...
- Help

12. Select "Port", click "Next.



Steps:
- Rule Type
- Protocol and Ports
- Action
- Profile
- Name

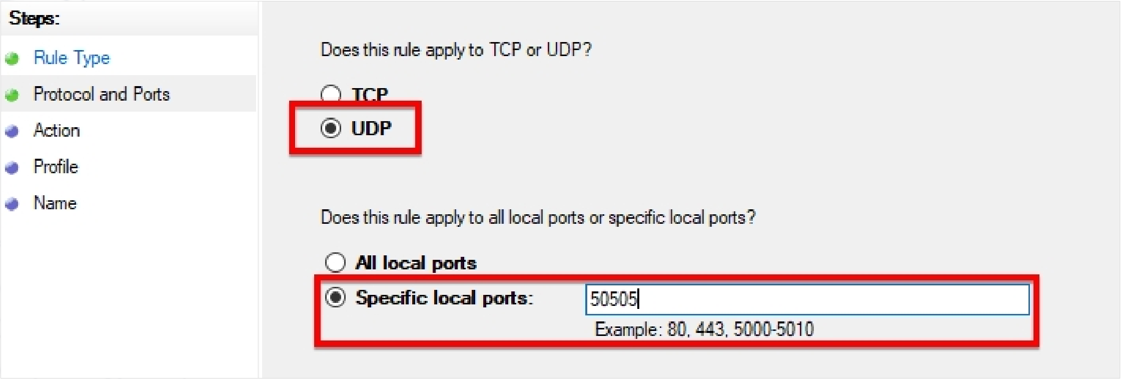
What type of rule would you like to create?

○ **Program**
Rule that controls connections for a program.

● **Port**
Rule that controls connections for a TCP or UDP port.

○ **Predefined:**
AllJoyn Router
Rule that controls connections for a Windows experience.

13. Select “UDP”, select “Specific local ports:”, enter “50505”, click “Next.



Does this rule apply to TCP or UDP?

○ TCP

● UDP

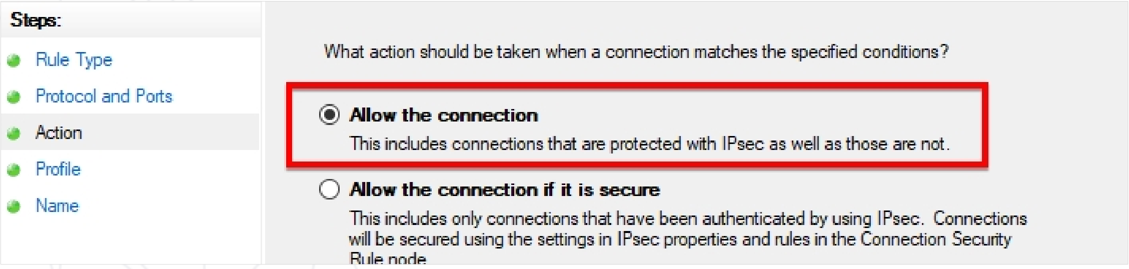
Does this rule apply to all local ports or specific local ports?

○ All local ports

● Specific local ports: 50505

Example: 80, 443, 5000-5010

14. Select “Allow the connection”, click “Next.



What action should be taken when a connection matches the specified conditions?

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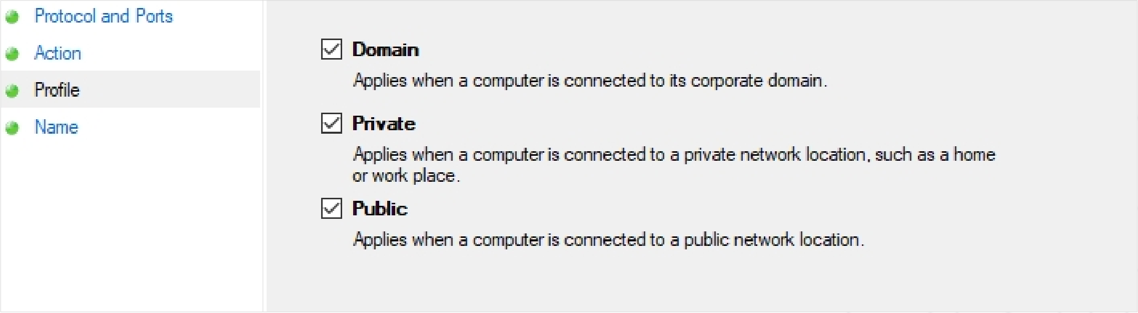
This includes connections that are protected with IPsec as well as those are not.

○ Allow the connection if it is secure

This includes only connections that have been authenticated by using IPsec. Connections will be secured using the settings in IPsec properties and rules in the Connection Security Rule node.

15. Select “Domain”, “Private” and “Public”, click “Next.



☑ Domain

Applies when a computer is connected to its corporate domain.

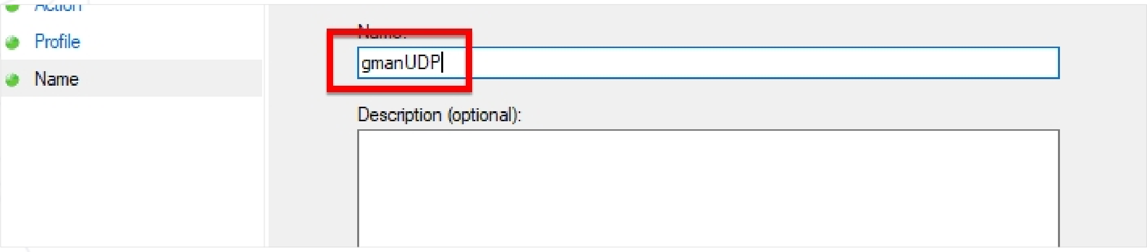
☑ Private

Applies when a computer is connected to a private network location, such as a home or work place.

☑ Public

Applies when a computer is connected to a public network location.

16. Name the new rule “gmanUDP”. No description is necessary. Click “Finish”.



Action

Profile

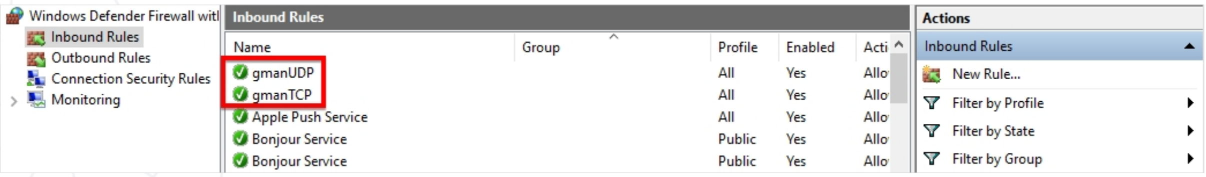
Name

Name:

gmanUDP

Description (optional):

17. Both your newly-created rules will appear in the Inbound Rules list.

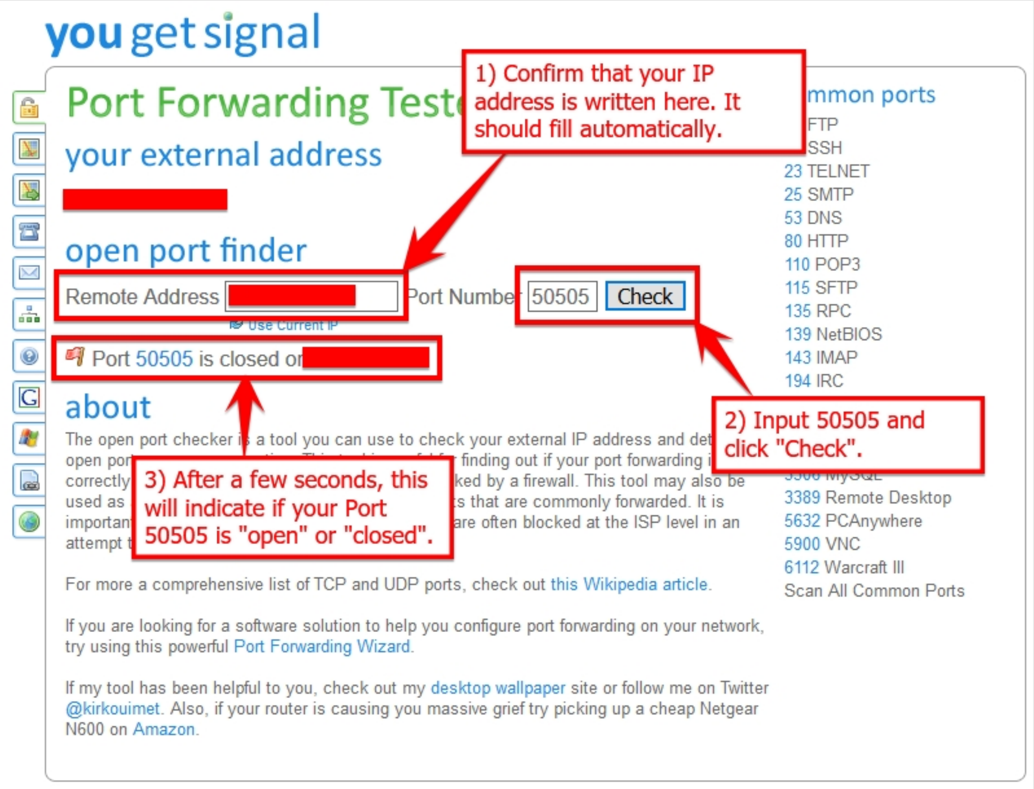


Windows Defender Firewall wit
Inbound Rules
Outbound Rules
Connection Security Rules
Monitoring

Inbound Rules

Name	Group	Profile	Enabled	Acti
gmanUDP		All	Yes	Allo
gmanTCP		All	Yes	Allo
Apple Push Service		All	Yes	Allo
Bonjour Service		Public	Yes	Allo
Bonjour Service		Public	Yes	Allo

18. Check if port 50505 is open using an online tool such as You Get Signal: https://www.yougetsignal.com/tools/open-ports/



[redacted]

Remote Address [redacted]

Use Current IP

Port Number 50505 Check

Port 50505 is closed on [redacted]

The open port checker is a tool you can use to check your external IP address and det... open por... finding out if your port forwarding i... correctly... ked by a firewall. This tool may also be used as ... s that are commonly forwarded. It is importan... are often blocked at the ISP level in an attempt t...

For more a comprehensive list of TCP and UDP ports, check out this Wikipedia article.

If you are looking for a software solution to help you configure port forwarding on your network, try using this powerful Port Forwarding Wizard.

If my tool has been helpful to you, check out my desktop wallpaper site or follow me on Twitter @kirkouimet. Also, if your router is causing you massive grief try picking up a cheap Netgear N600 on Amazon.

1) Confirm that your IP address is written here. It should fill automatically.

2) Input 50505 and click "Check".

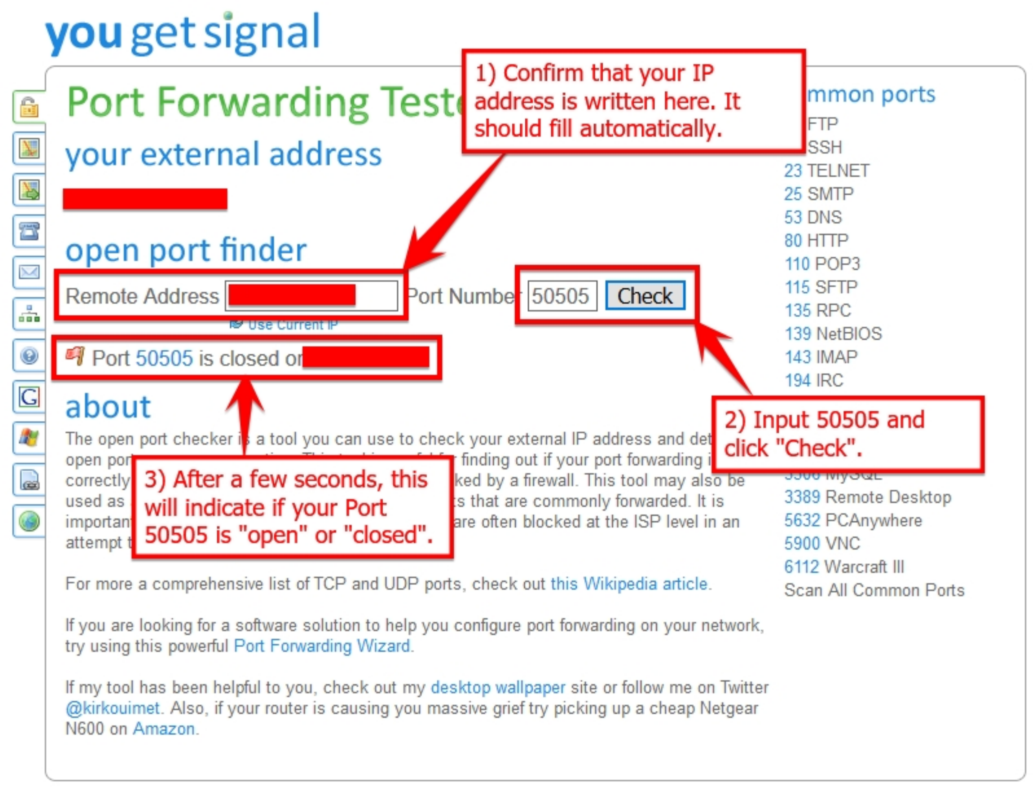
3) After a few seconds, this will indicate if your Port 50505 is "open" or "closed".

If Port 50505 is open, you may ignore the rest of this guide. If Port 50505 is still closed, you need to open Port 50505 in your router!

Opening Port 50505 on your MAC

1. Turn off your firewall. Your MAC's firewall should be disabled by default. If it is turned on, please turn it off. When your MAC's firewall is turned off, all inbound ports are open.

2. Check if port 50505 is open using an online tool such as You Get Signal: https://www.yougetsignal.com/tools/open-ports/



you get signal

Port Forwarding Teste

your external address

[redacted]

open port finder

Remote Address [redacted] Port Numbe 50505 Check

Use Current IP

Port 50505 is closed or [redacted]

about

The open port checker i a tool you can use to check your external IP address and det open por … finding out if your port forwarding i correctly … ked by a firewall. This tool may also be used as … s that are commonly forwarded. It is importan … are often blocked at the ISP level in an attempt t

For more a comprehensive list of TCP and UDP ports, check out this Wikipedia article.

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mmon ports

FTP
SSH
23 TELNET
25 SMTP
53 DNS
80 HTTP
110 POP3
115 SFTP
135 RPC
139 NetBIOS
143 IMAP
194 IRC
3389 Remote Desktop
5632 PCAnywhere
5900 VNC
6112 Warcraft III
Scan All Common Ports

1) Confirm that your IP address is written here. It should fill automatically.

2) Input 50505 and click "Check".

3) After a few seconds, this will indicate if your Port 50505 is "open" or "closed".

If Port 50505 is open, you may ignore the rest of this guide. If Port 50505 is still closed, you need to open Port 50505 in your router!

Opening Port 50505 on your Router

As mentioned several times in this guide, Port 50505 needs to be open to guarantee the normal operation of your Matrix Masternode. After opening Port 50505 on your Windows or MAC, you may also need to open Port 50505 on your router.

Because every router is different, it is impossible to provide a step-by-step guide applicable to everyone. The simplest way to open Port 50505 is using your router's NAT function. Be sure to open both TCP/UDP ports (usually via a drop-down menu). While most routers give you access to NAT functions, some do not. If your router does not support NAT, you may need to contact your router manufacturer. Alternatively, there are also several high-quality resources online.

Once configuring your router and opening Port 50505 (both TCP and UDP), you can check if port 50505 is open using an online tool such as You Get Signal: https://www.yougetsignal.com/tools/open-ports/