Troubleshooting jenkins

1. Installation and communication

I want install jenkins master in windows machin and I want to connect the master to my nodes running on ubuntu(slave) hosted VmWare.
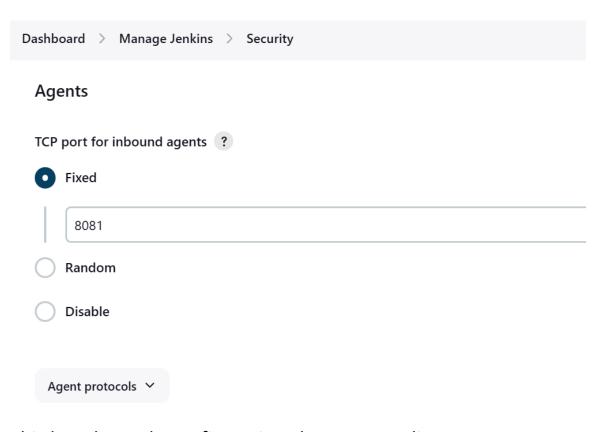
But once I use **webSocket**, the connection doen't work. The error was like "Connection refused", "Error of handshaking".

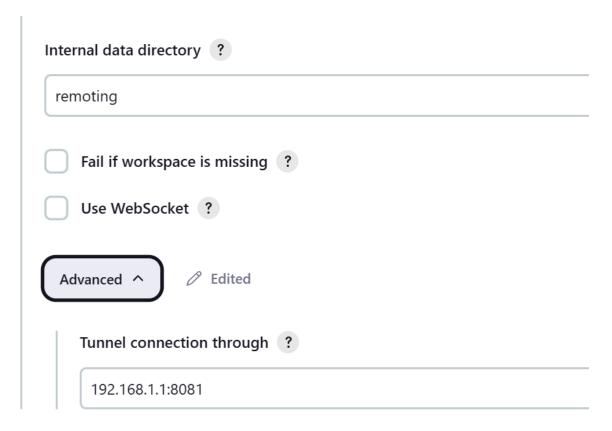So decide I decide to use **Tunneling** to connect my host.

First you have to choose a port for the connection between the master and the node (port 8081 for my case) you have to enale it in your windows firewall.

Inbound Rules

Name	Group	Profile	Enabled	Action	Override	Local Port	Program
File and Printer Sharing (Spooler Service - ...	File and Printer Sharing	Domain	No	Allow	No	RPC Endpo...	%System...
File and Printer Sharing over SMBDirect (i...	File and Printer Sharing over ...	All	No	Allow	No	5445	System
Google Chrome (mDNS-In)	Google Chrome	All	Yes	Allow	No	5353	C:\Progra...
HomeGroup In	HomeGroup	Private	No	Allow	No	3587	%systemr...
HomeGroup In (PNRP)	HomeGroup	Private	No	Allow	No	3540	%systemr...
Inbound Rule for Remote Shutdown (RPC...	Remote Shutdown	All	No	Allow	No	RPC Endpo...	%systemr...
Inbound Rule for Remote Shutdown (TCP-...	Remote Shutdown	All	No	Allow	No	RPC Dyna...	%systemr...
iSCSI Service (TCP-In)	iSCSI Service	Domain	No	Allow	No	Any	%System...
iSCSI Service (TCP-In)	iSCSI Service	Private,...	No	Allow	No	Any	%System...
Jenkins_Tunnel_port		All	Yes	Allow	No	8081	Any
Key Management Service (TCP-In)	Key Management Service	Private,...	No	Allow	No	1688	%System...
Key Management Service (TCP-In)	Key Management Service	Domain	No	Allow	No	1688	%System...
Mail and Calendar	Mail and Calendar	All	Yes	Allow	No	Any	Any
Mail and Calendar	Mail and Calendar	All	Yes	Allow	No	Any	Any
mDNS (UDP-In)	mDNS	Public	Yes	Allow	No	5353	%System...
mDNS (UDP-In)	mDNS	Private	Yes	Allow	No	5353	%System...
mDNS (UDP-In)	mDNS	Domain	Yes	Allow	No	5353	%System...

Second, Go to **Manage jenkins -- > Security -- > Agent** and   fixe the port to **8081**.

Agents

TCP port for inbound agents   ?

○ **Fixed**

> 8081

○ Random

○ Disable

Agent protocols ∨

Third, In the node configuration choose Tunneling

Internal data directory   ?

> remoting

☐ **Fail if workspace is missing**   ?

☐ **Use WebSocket**   ?
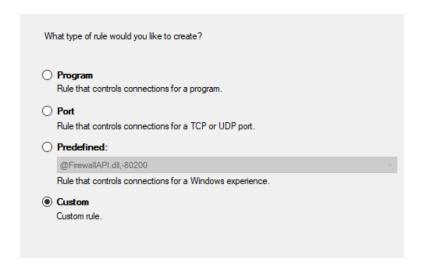
Advanced ∧   ✎ Edited

> **Tunnel connection through**   ?
>
> > 192.168.1.1:8081

Finally you have to go to **Manage jenkins** -- > **System** and change the jenkins url.
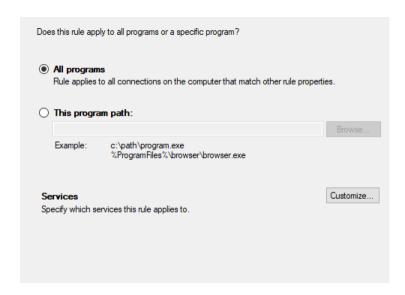
Dashboard > Manage Jenkins > System >

Jenkins Location

Jenkins URL ?

http://192.168.1.1:8080/

System Admin e-mail address ?

address not configured yet <nobody@nowhere>

Otherwise you'll get some error like if you run the agent.jar file in your node: "http://localhost:8080/tcpSlaveAgentListener/ is invalid: 404 Not Found"
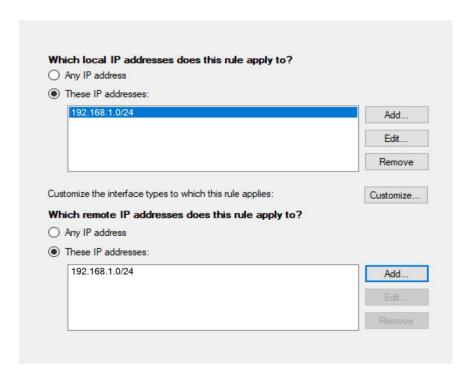
```
root@ubuntu:/# curl -sO http://192.168.1.1:8080/jnlpJars/agent.jar;java -jar agent.jar -jnlpUrl http://192.168.1.1:8080/computer/nnndd/jenkins-agent.jnlp -sec
ret 6e171b4de8ee9f9c531f7c0f2e2d107db6bbde17dffadf82e764e7401bbc4343 -workDir "/jenkins_dir"
Jul 06, 2023 6:52:08 PM org.jenkinsci.remoting.engine.WorkDirManager initializeWorkDir
INFO: Using /jenkins_dir/remoting as a remoting work directory
Jul 06, 2023 6:52:09 PM org.jenkinsci.remoting.engine.WorkDirManager setupLogging
INFO: Both error and output logs will be printed to /jenkins_dir/remoting
Jul 06, 2023 6:52:12 PM hudson.remoting.jnlp.Main createEngine
INFO: Setting up agent: nnndd
Jul 06, 2023 6:52:12 PM hudson.remoting.Engine startEngine
INFO: Using Remoting version: 3107.v665000b_51092
Jul 06, 2023 6:52:12 PM org.jenkinsci.remoting.engine.WorkDirManager initializeWorkDir
INFO: Using /jenkins_dir/remoting as a remoting work directory
Jul 06, 2023 6:52:14 PM hudson.remoting.jnlp.Main$CuiListener status
INFO: Locating server among [http://localhost:8080/]
Jul 06, 2023 6:52:14 PM hudson.remoting.jnlp.Main$CuiListener error
Terminal http://localhost:8080/tcpSlaveAgentListener/ is invalid: 404 Not Found
java.io.IOException: http://localhost:8080/tcpSlaveAgentListener/ is invalid: 404 Not Found
        at org.jenkinsci.remoting.engine.JnlpAgentEndpointResolver.resolve(JnlpAgentEndpointResolver.java:221)
        at hudson.remoting.Engine.innerRun(Engine.java:755)
        at hudson.remoting.Engine.run(Engine.java:543)
```

Now you can the jar file to your node

If you get a connection timeout, review your windows firewall by adding a new Inbounds rule.

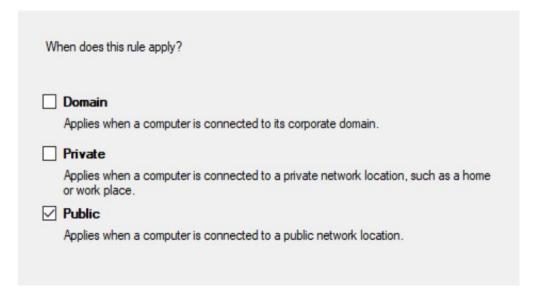What type of rule would you like to create?

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

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

○ **Predefined:**

 @FirewallAPI.dll,-80200

 Rule that controls connections for a Windows experience.

● **Custom**
 Custom rule.

Does this rule apply to all programs or a specific program?

● **All programs**
 Rule applies to all connections on the computer that match other rule properties.

○ **This program path:**

 Browse...

 Example: c:\path\program.exe
   %ProgramFiles%\browser\browser.exe

Services   Customize...
Specify which services this rule applies to.

Type next and again next

Choose the network ip address (in my case my laptop and vm share the 192.168.1.0/24)

Choose allow all connection, clic Next,

Choose a name and create

2. Git error.

> git.exe init /jenkins_root_directory/workspace/testpipeline # timeout=10
ERROR: Error cloning remote repo 'origin'
Caused by: java.io.IOException: Cannot run program "git.exe" (in directory
"/jenkins_root_directory/workspace/testpipeline"): error=2, No such file or directory

The problem is: I install Jenkins in Windows and in the global tool windows use **git.exe**. Instead my worker is a linux machin, so linux doesn't know git.exe

SOLUTION: **Go to Manage Jenkins -- > Tools -- > git,**
Give variable name (like git3) and the location of git in the linux worker (/usr/bin/git). Finally in the pipeline tool section specify the git variable name like we do with maven.

Dashboard > Manage Jenkins > Tools

Git installations

≡   **Git**

Name

git3

Path to Git executable ?

/usr/bin/git

! There's no such file: \usr\bin\git

☐   **Install automatically** ?

```
tools{
    git "git3"
    maven "Maven3"
}
```