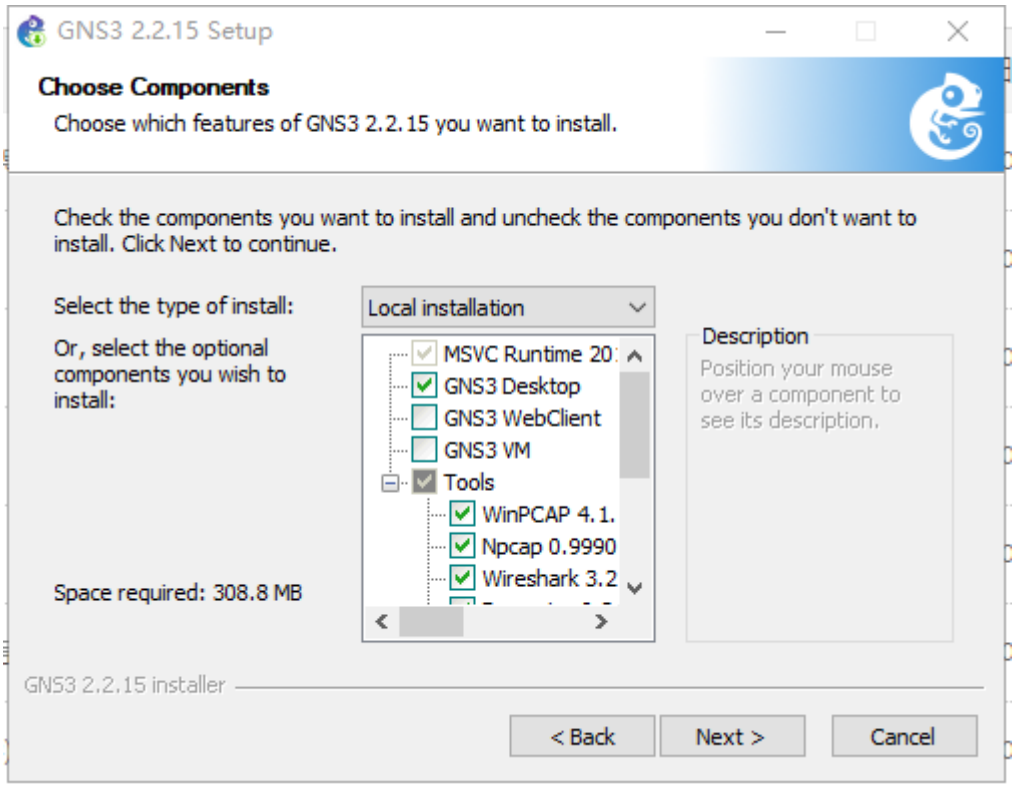
Gns3 使用说明

1. 安装 gns3

安装 GNS3-2.2.15-all-in-one.exe 文件

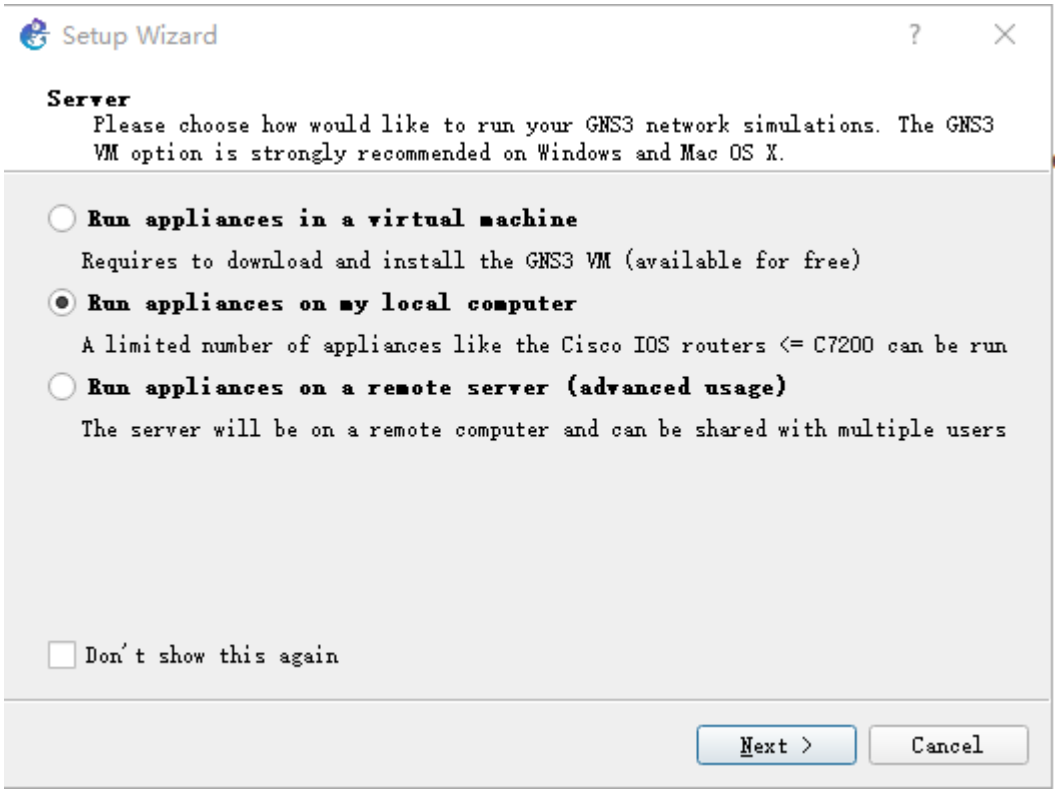


选择默认配置。

安装过程中 Wireshark 安装可取消。

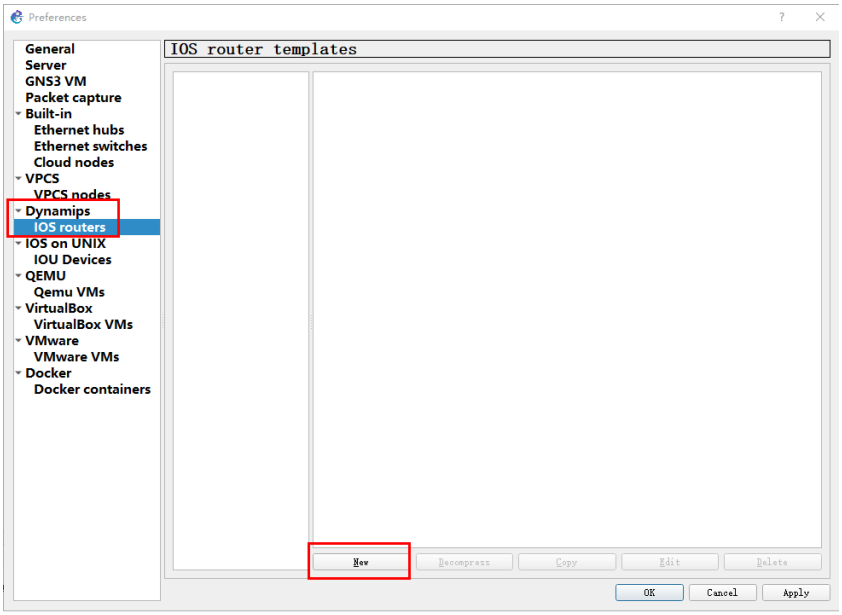
2. 启动 gns3

选择第二个选项

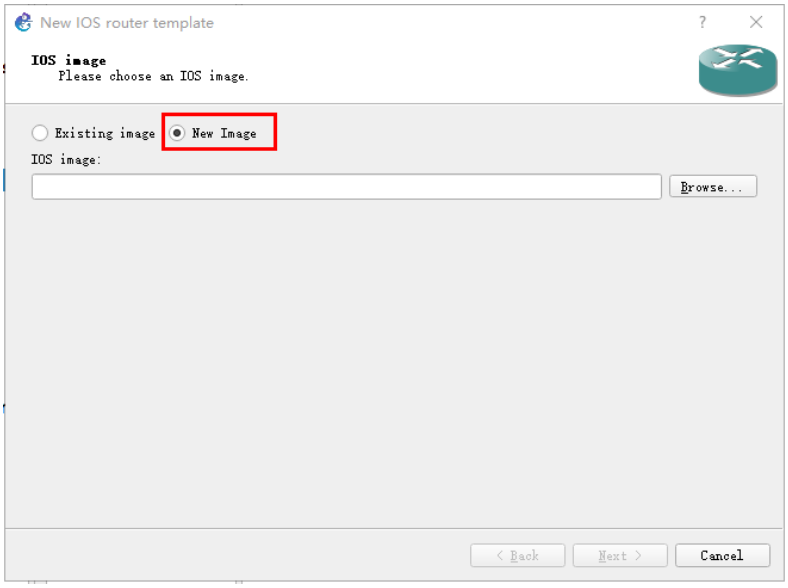


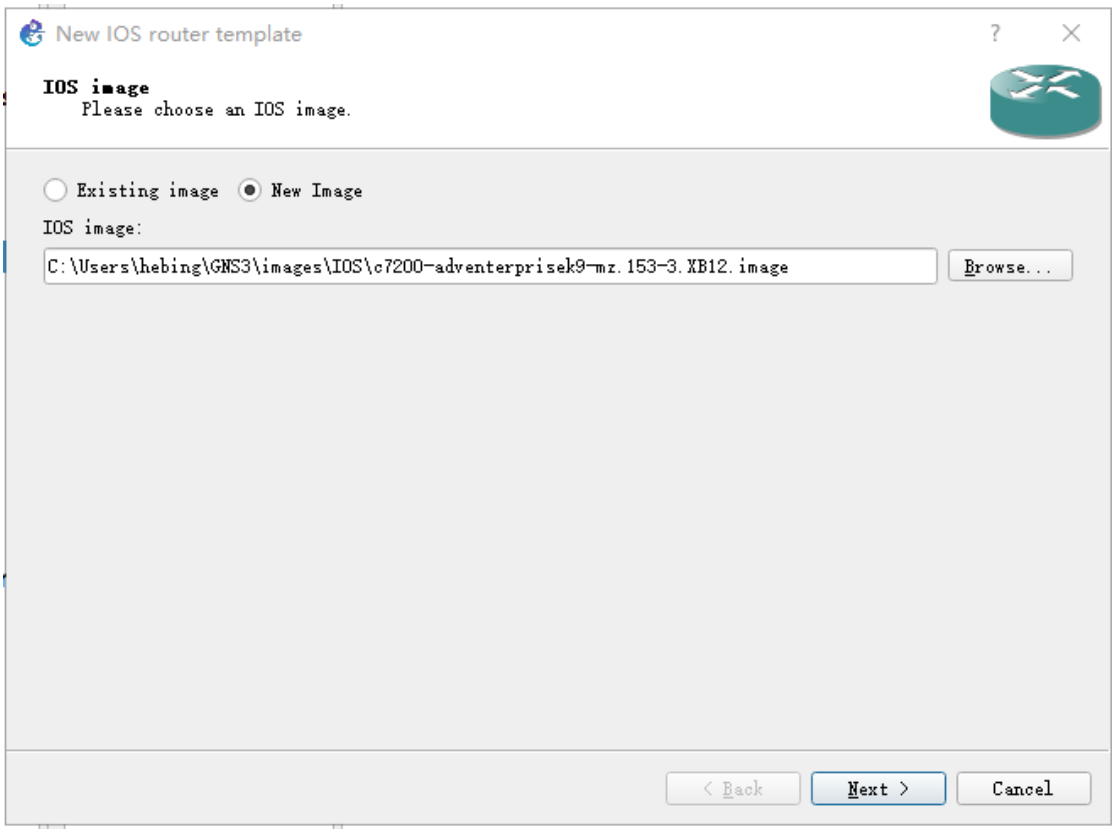
2 添加 Cisco 7200 image

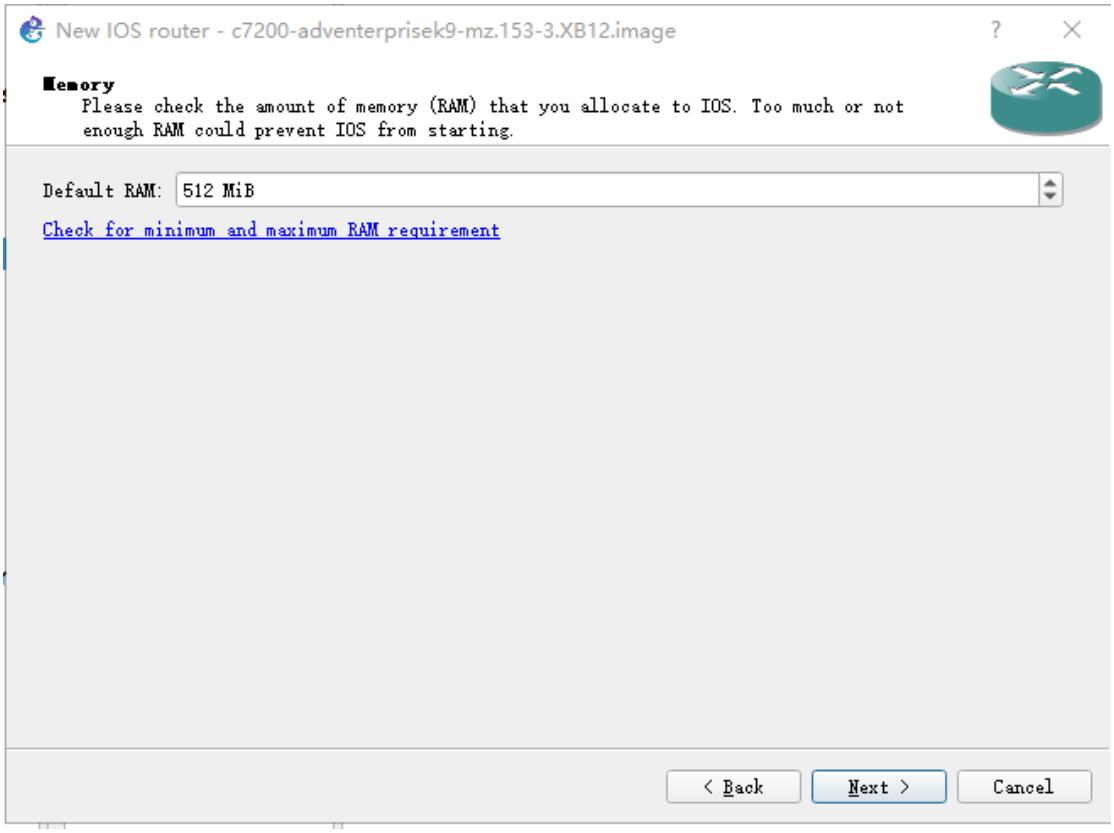
在 gns3 中打开 edit->preferences

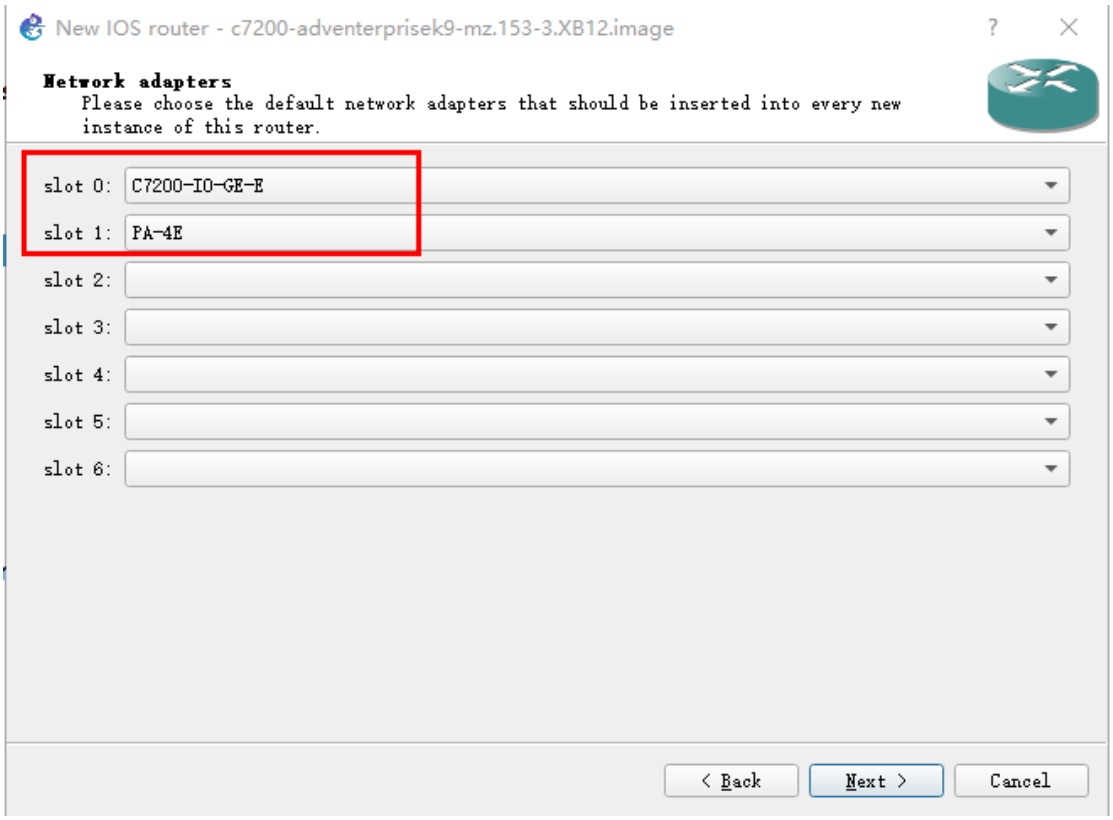

Preferences
General
Server
GNS3 VM
Packet capture
Built-in
Ethernet hubs
Ethernet switches
Cloud nodes
VPCS
VPCS nodes
Dynamips
IOS routers
IOS on UNIX
IOU Devices
QEMU
Qemu VMs
VirtualBox
VirtualBox VMs
VMware
VMware VMs
Docker
Docker containers
IOS router templates
New
Decompress
Copy
Edit
Delete
OK
Cancel
Apply

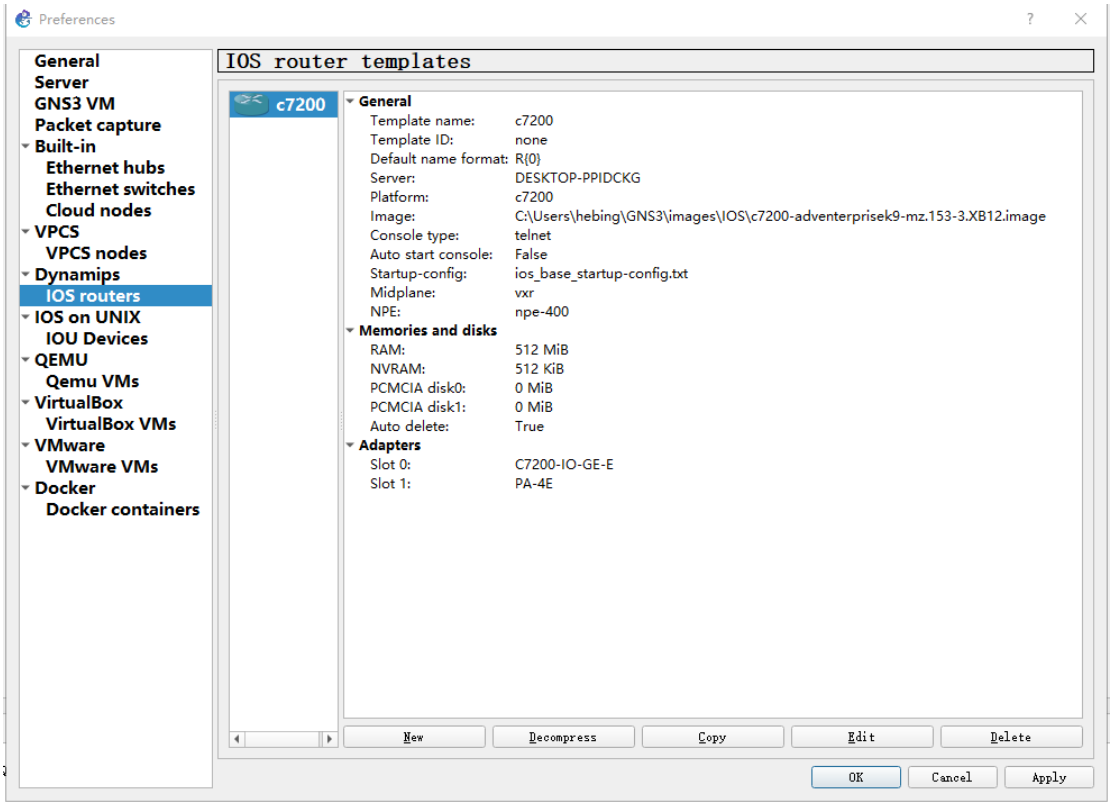
选择 new


New IOS router template
IOS image
Please choose an IOS image.
Existing image
New Image
IOS image:
Browse...
< Back
Next >
Cancel


New IOS router template
IOS image
Please choose an IOS image.
Existing image
New Image
IOS image:
C:\Users\hebing\GNS3\images\IOS\c7200-adventerprisek9-mz.153-3.XB12.image
Browse...
< Back
Next >
Cancel

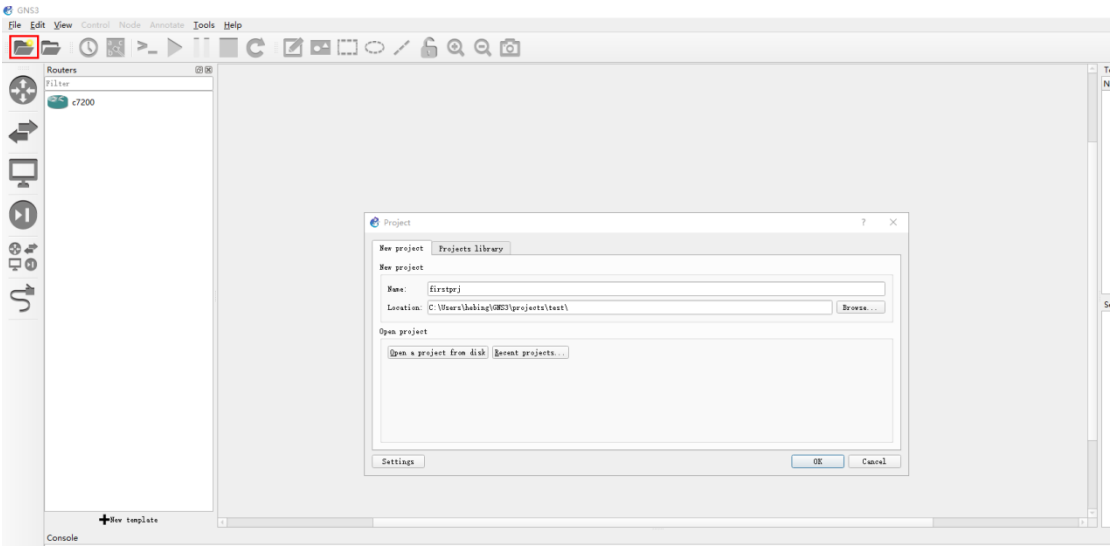

New IOS router - c7200-adventerprisek9-mz.153-3.XB12.image
Memory
Please check the amount of memory (RAM) that you allocate to IOS. Too much or not enough RAM could prevent IOS from starting.
Default RAM:
512 MiB
Check for minimum and maximum RAM requirement
< Back
Next >
Cancel



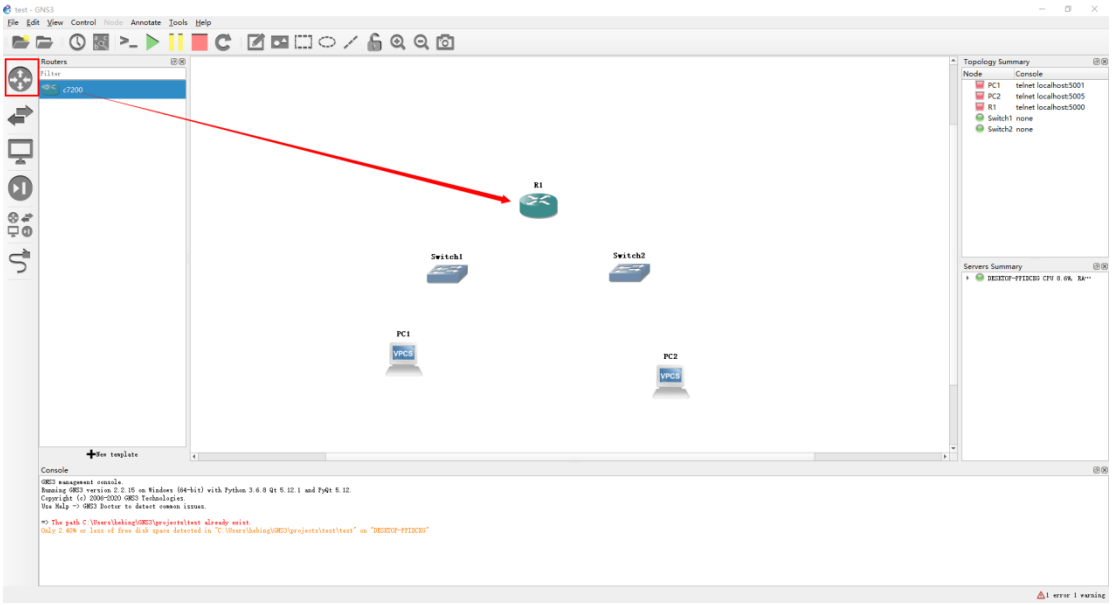


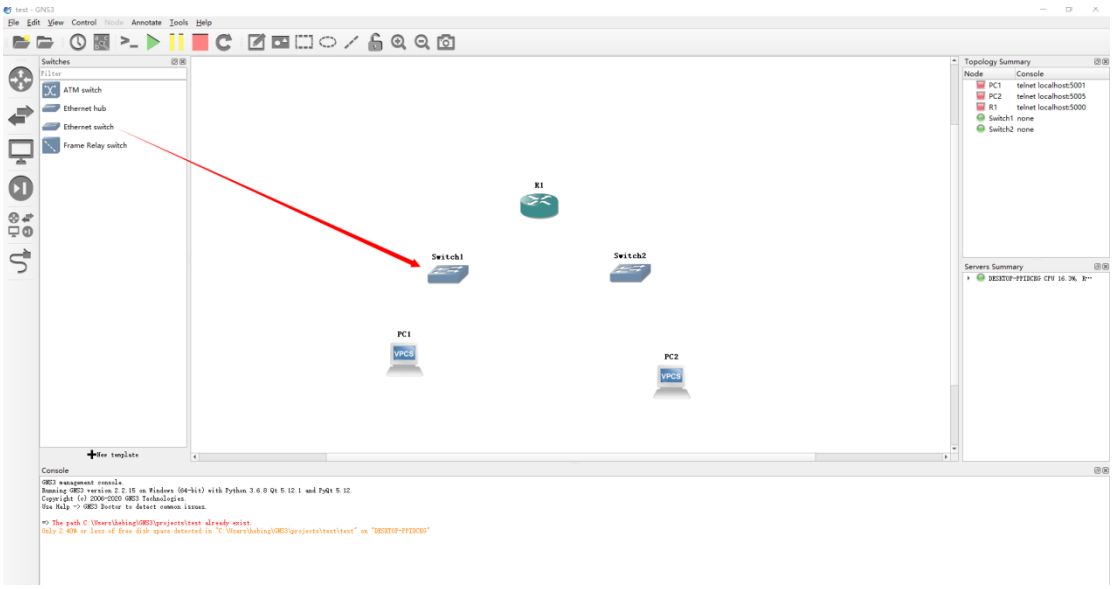
至此初次启动配置完成，以后再次启动不用再重复配置过程。

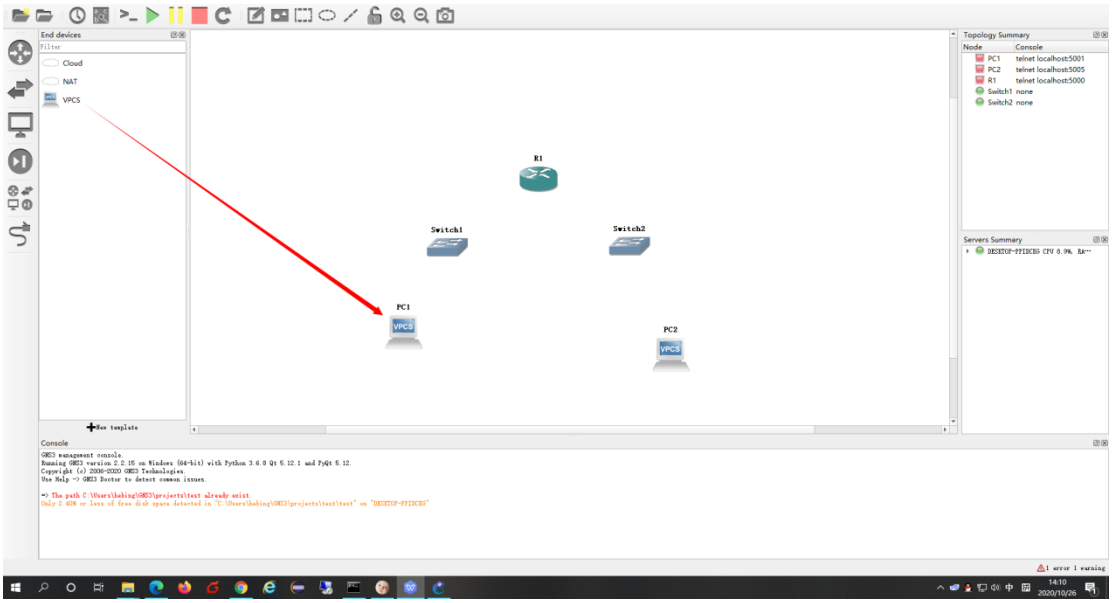
3. 新建工程，点击新建工程图标



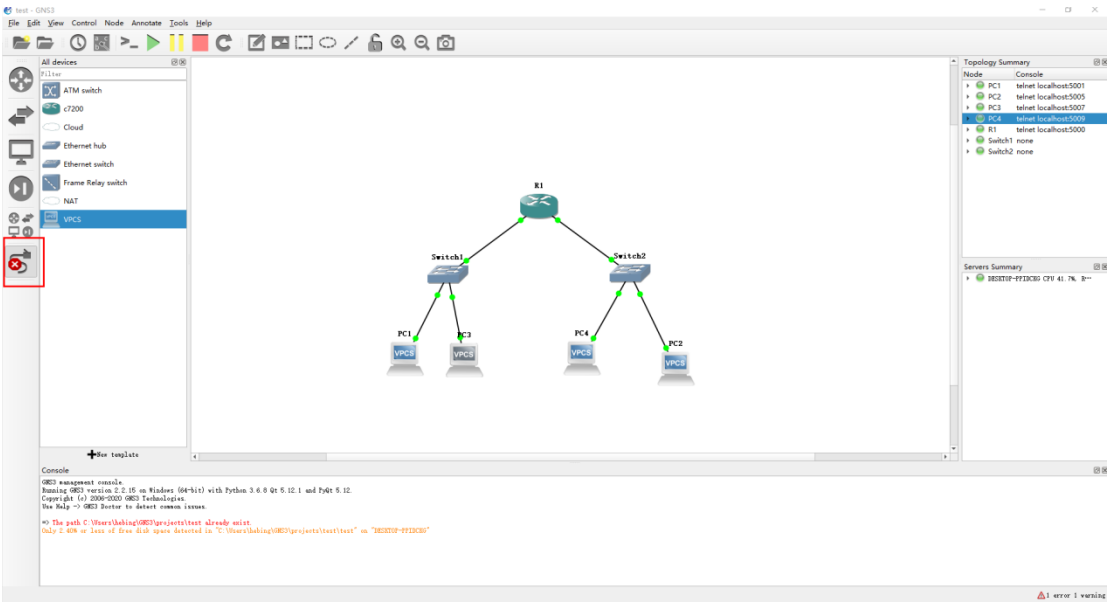
4. 将路由器，交换机，主机图标根据设计的网络结构拖入编辑区进行网络拓扑的编辑工作



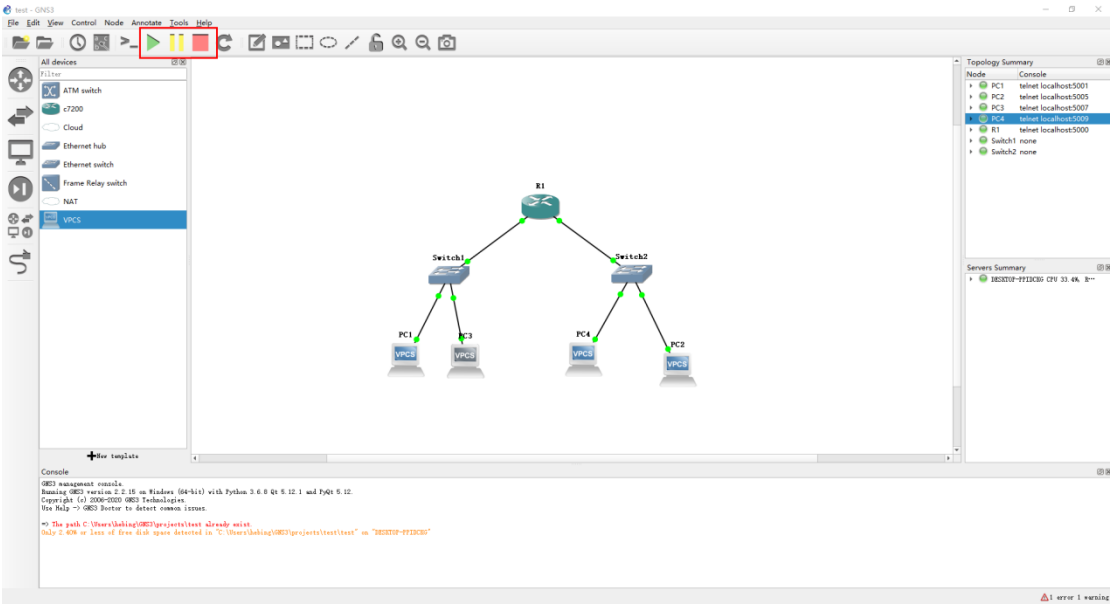

Switches
ATM switch
Ethernet hub
Ethernet switch
Frame Relay switch
R1
Switch1
Switch2
PC1
PC2
VPCS
Topology Summary
Node
Console
PC1 telnet localhost:5001
PC2 telnet localhost:5005
R1 telnet localhost:5000
Switch1 none
Switch2 none
Servers Summary
Console


End devices
Cloud
NAT
VPCS
R1
Switch1
Switch2
PC1
PC2
VPCS
Topology Summary
Node
Console
PC1 telnet localhost:5001
PC2 telnet localhost:5005
R1 telnet localhost:5000
Switch1 none
Switch2 none
Servers Summary
Console

连接网络连接线



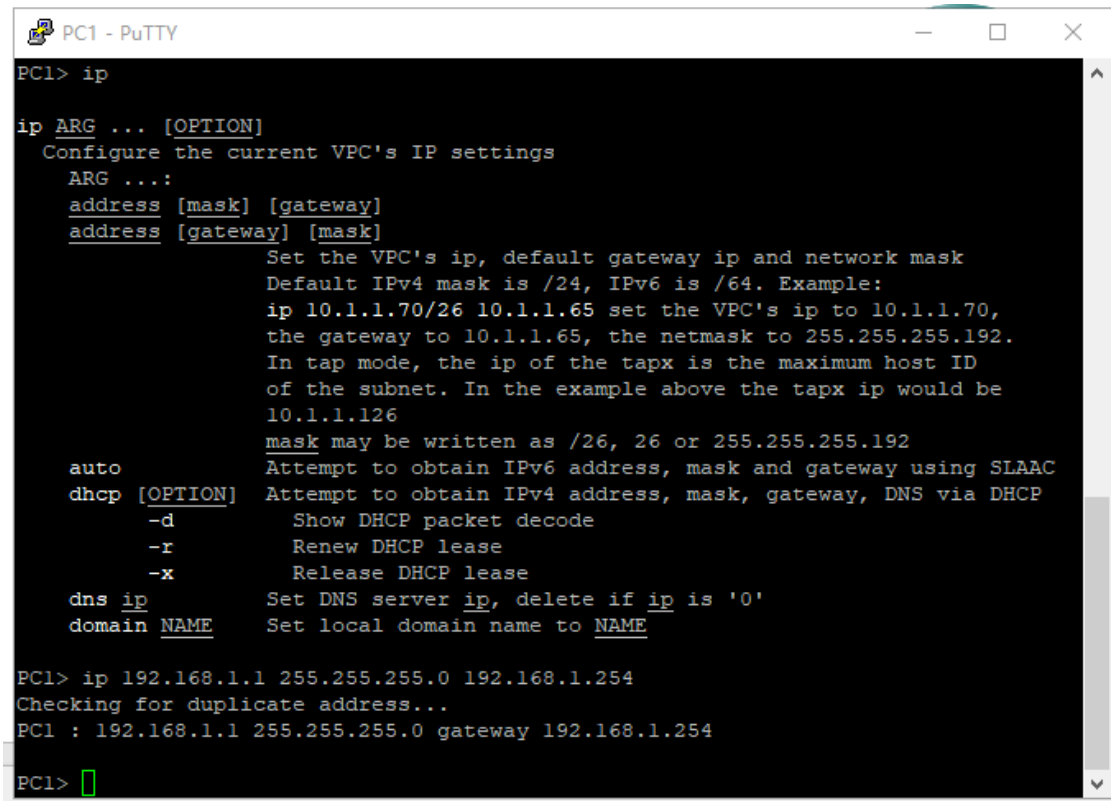
启动网络模拟器



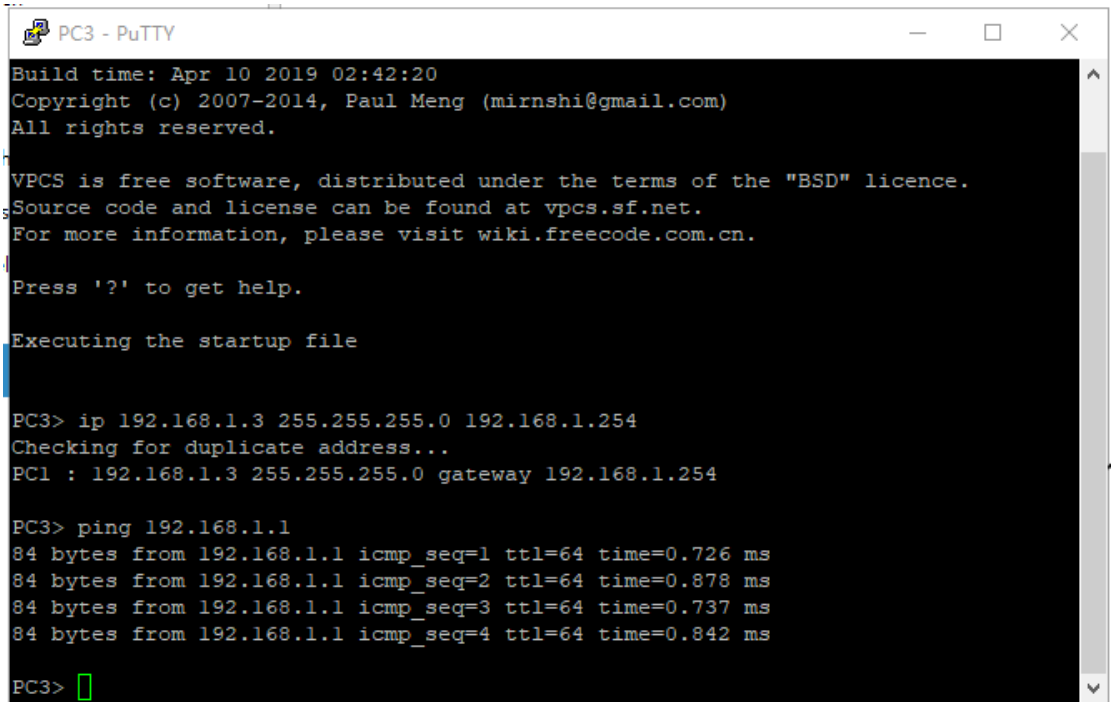
双击电脑图标进行主机的 ip 地址配置。

在终端里面输入？可查询命令用法。

我们设置 pc1 的 ip 地址 192.168.1.1 子网掩码 255.255.255.0, 网关 192.168.1.254



设置 pc3 的 ip 地址 192.168.1.3 子网掩码 255.255.255.0, 网关 192.168.1.254，设置好以后应该可以 ping 通 pc1

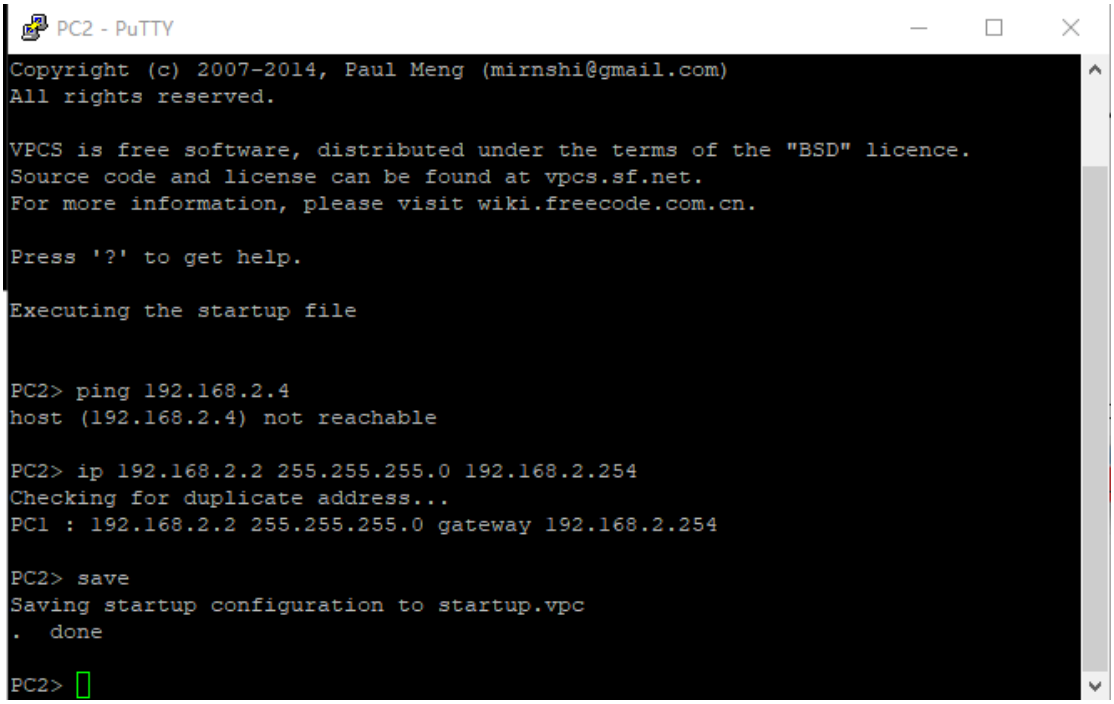


在 pc2 ,pc4 重复同样设置过程

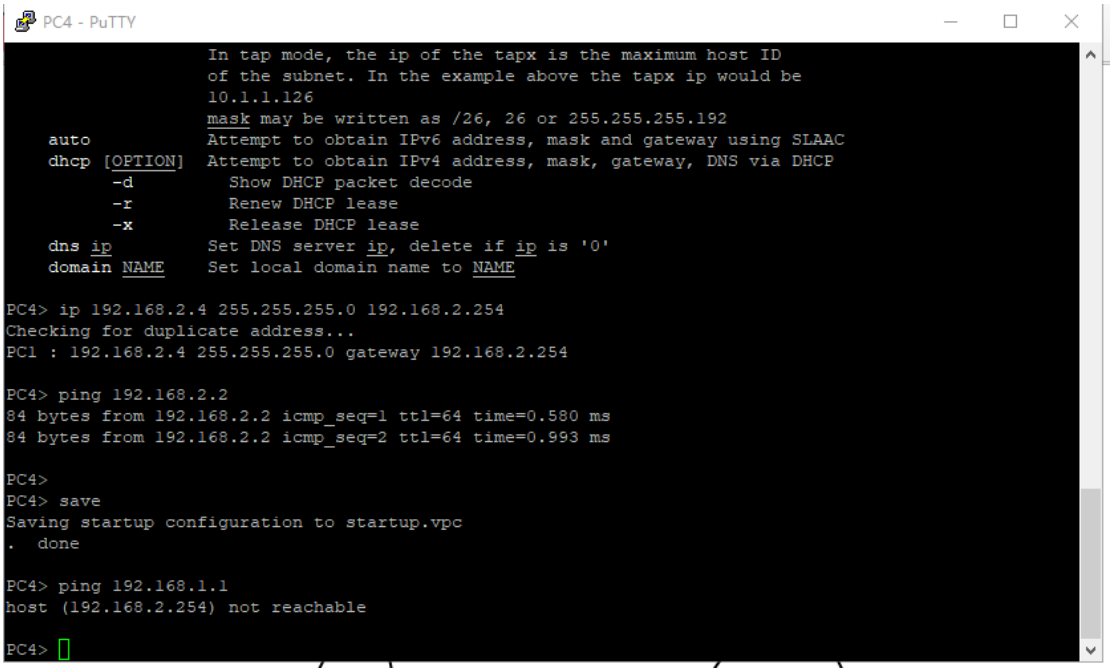
设置 pc2 的 ip 地址 192.168.2.2 子网掩码 255.255.255.0, 网关 192.168.2.254

设置 pc4 的 ip 地址 192.168.2.4 子网掩码 255.255.255.0, 网关 192.168.2.254

注意设置好以后执行 save 命令保存设置，否则 ip 地址设置会丢失。



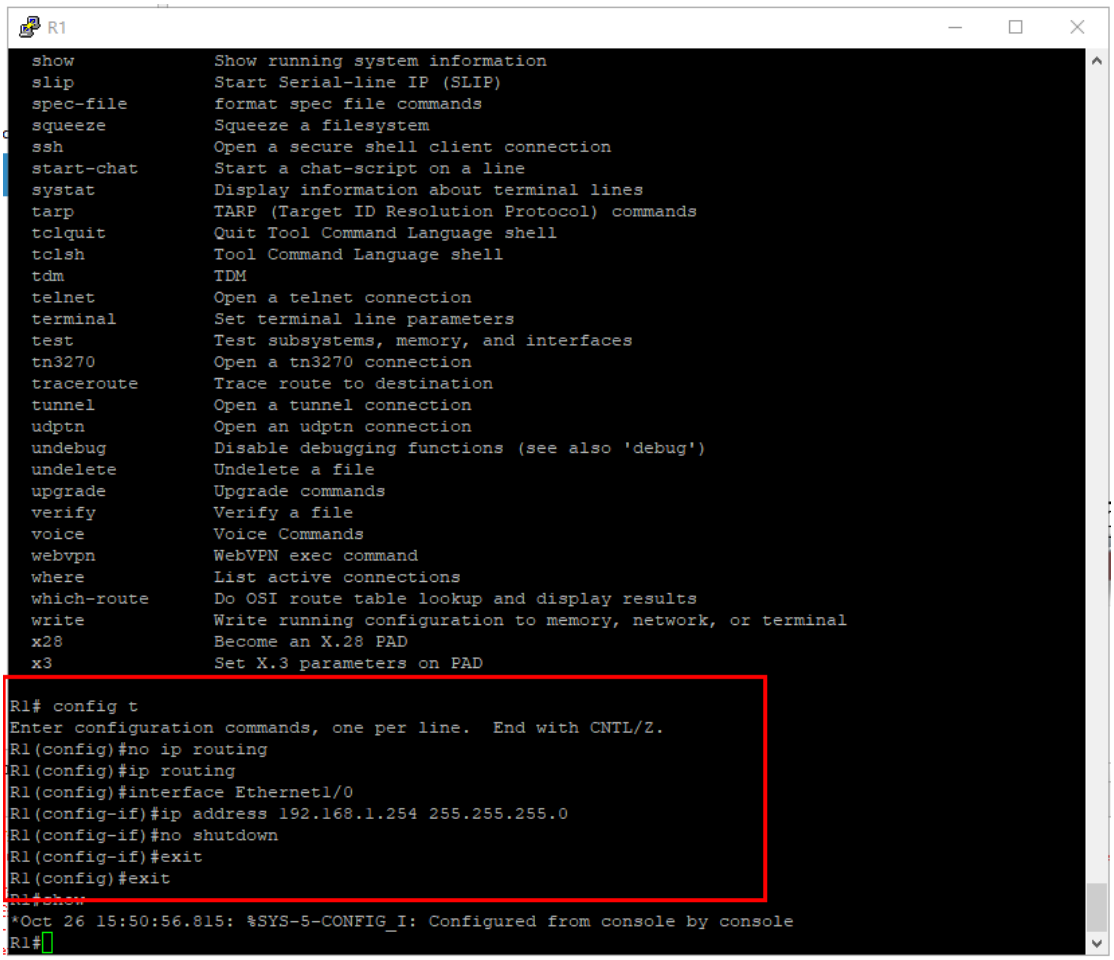
现在局域网 1（pc1,pc3）和局域网 2（pc2,pc4）之间主机无法 ping 通，但内部之间可以 ping 通,下面将进行路由器的设置。



路由器设置

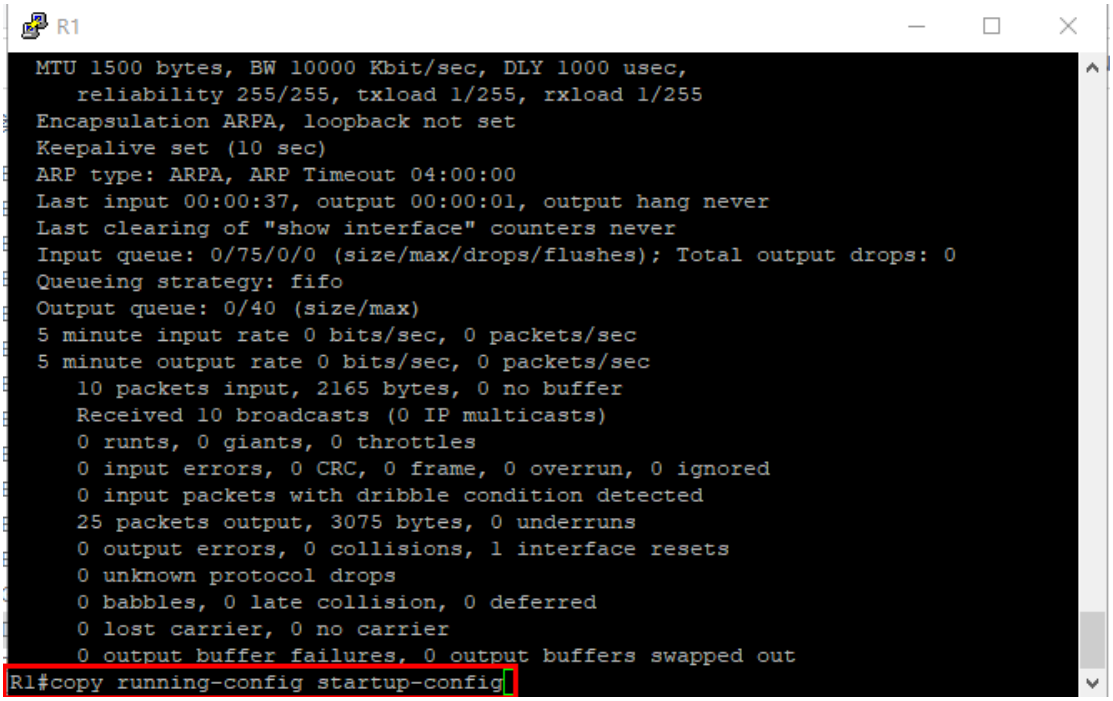
双击路由器图标，进入终端配置界面。

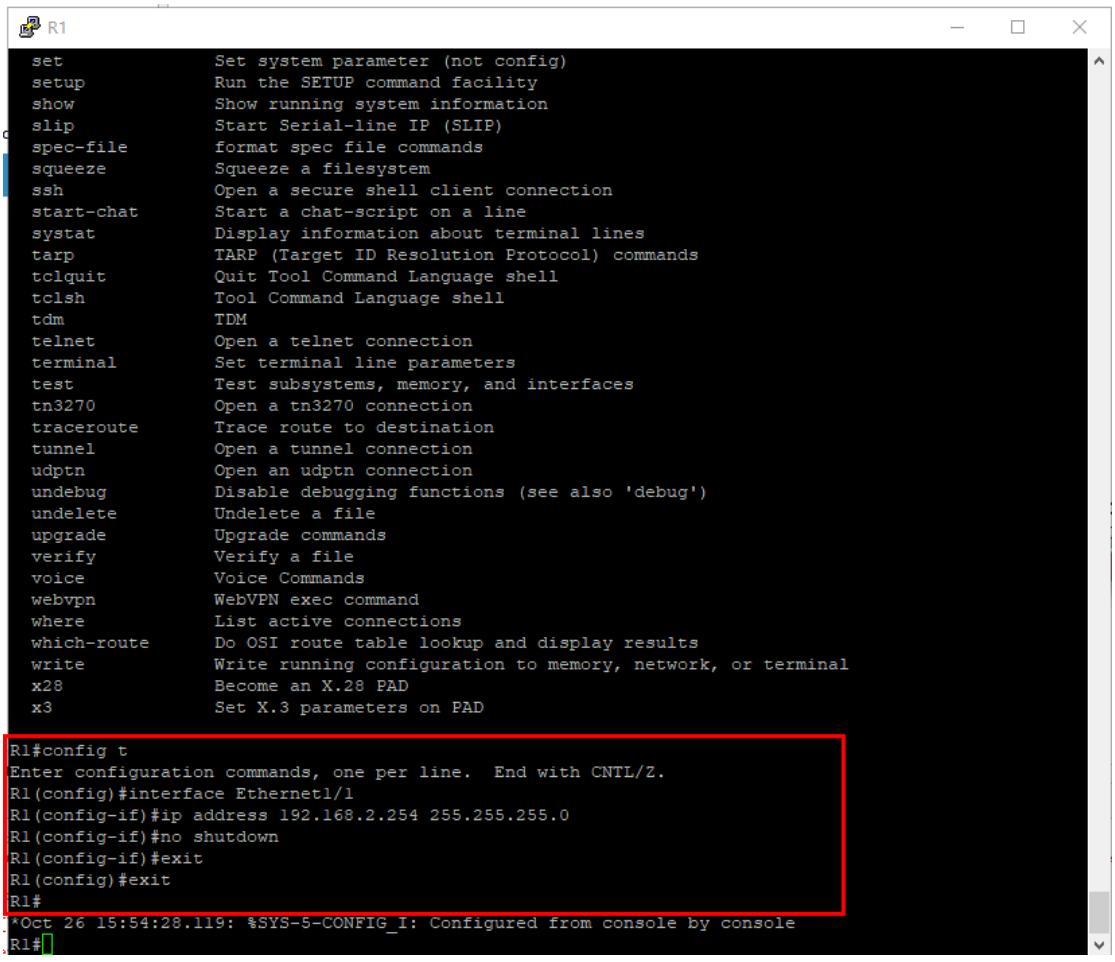
配置与局域网（PC1，PC3）连接的路由器端口 Ethernet1/0 的 ip 地址为 192.168.1.254



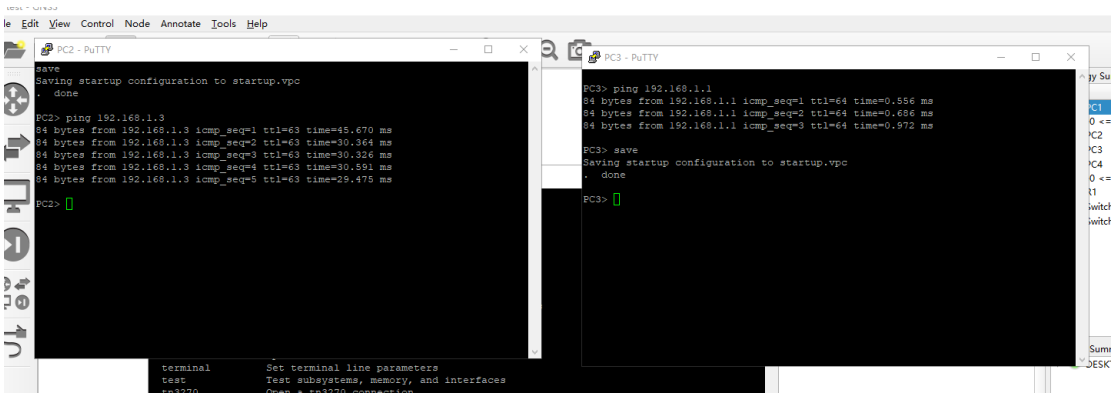
配置与局域网（PC2，PC4）连接的路由器端口 Ethernet1/1 的 ip 地址为 192.168.2.254，过程与上面相同。

保存路由器配置信息执行 copy running-config startup-config





配置结束后局域网 1（PC1,PC3）和局域网 2（PC2，PC3）内的主机可以相互 ping 通。


le Edit View Control Node Annotate Tools Help
PC2 - PuTTY
save
Saving startup configuration to startup.vpc
. done
PC2> ping 192.168.1.3
84 bytes from 192.168.1.3 icmp_seq=1 ttl=63 time=45.670 ms
84 bytes from 192.168.1.3 icmp_seq=2 ttl=63 time=30.364 ms
84 bytes from 192.168.1.3 icmp_seq=3 ttl=63 time=30.326 ms
84 bytes from 192.168.1.3 icmp_seq=4 ttl=63 time=30.591 ms
84 bytes from 192.168.1.3 icmp_seq=5 ttl=63 time=29.475 ms
PC2>
PC3 - PuTTY
PC3> ping 192.168.1.1
84 bytes from 192.168.1.1 icmp_seq=1 ttl=64 time=0.556 ms
84 bytes from 192.168.1.1 icmp_seq=2 ttl=64 time=0.686 ms
84 bytes from 192.168.1.1 icmp_seq=3 ttl=64 time=0.972 ms
PC3> save
Saving startup configuration to startup.vpc
. done
PC3>
terminal Set terminal line parameters
test Test subsystems, memory, and interfaces