


Virtual Network Editor

 Virtual Network Editor ✕

Name	Type	External Connection	Host Connection	DHCP	Subnet Address
VMnet0	Bridged	Auto-bridging	-	-	-
VMnet1	Host-only	-	Connected	Enabled	192.168.150.0
VMnet2	Host-only	-	Connected	Enabled	192.168.182.0
VMnet8	NAT	NAT	Connected	Enabled	192.168.13.0

Add Network...

Remove Network

Rename Network...

VMnet Information

☒ Bridged (connect VMs directly to the external network)

Bridged to:

Automatic

Automatic Settings...

☐ NAT (shared host's IP address with VMs)

NAT Settings...

☐ Host-only (connect VMs internally in a private network)

☐ Connect a host virtual adapter to this network

Host virtual adapter name: VMware Network Adapter VMnet0

☐ Use local DHCP service to distribute IP address to VMs

DHCP Settings...

Subnet IP:

.

.

.

Subnet mask:

.

.

.

Restore Defaults

Import...

Export...










OK










Cancel

Apply









Help








Server

Device	Summary
 Memory	4 GB
 Processors	2
 Hard Disk (SCSI)	20 GB
 CD/DVD (SATA)	Using file F:\Downloads\ubu...
 Network Adapter	Bridged (Automatic)
 Network Adapter 2	Custom (VMnet2)
 USB Controller	Present
 Sound Card	Auto detect
 Display	Auto detect

▼ Devices	
 Memory	4 GB
 Processors	2
 Hard Disk (SCSI)	20 GB
 CD/DVD (SATA)	Using file F:\Dow...
 Network Adapter	Bridged (Automat...
 Network Adapter 2	Custom (VMnet2)
 USB Controller	Present
 Sound Card	Auto detect
 Display	Auto detect
▼ Description	

Client

Device	Summary
 Memory	4 GB
 Processors	2
 Hard Disk (SCSI)	20 GB
 CD/DVD (SATA)	Using file F:\Downloads\ubu...
 Network Adapter	Custom (VMnet2)
 USB Controller	Present
 Sound Card	Auto detect
 Display	Auto detect

▼ Devices	
 Memory	4 GB
 Processors	2
 Hard Disk (SCSI)	20 GB
 CD/DVD (SATA)	Using file F:\Dow...
 Network Adapter	Custom (VMnet2)
 USB Controller	Present
 Sound Card	Auto detect
 Display	Auto detect

Communication Established

Server IP

```
vipassana@vipassana-VMware-Virtual-Platform:~$ ip addr
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
        valid_lft forever preferred_lft forever
    inet6 ::1/128 scope host noprefixroute
        valid_lft forever preferred_lft forever
2: ens33: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP group default qlen 1000
    link/ether 00:0c:29:69:50:21 brd ff:ff:ff:ff:ff:ff
    altname enp2s1
    inet6 fe80::9d4b:e2dc:72c2:b084/64 scope link noprefixroute
        valid_lft forever preferred_lft forever
3: ens37: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP group default qlen 1000
    link/ether 00:0c:29:69:50:2b brd ff:ff:ff:ff:ff:ff
    altname enp2s5
    inet 192.168.182.129/24 brd 192.168.182.255 scope global dynamic noprefixroute ens37
        valid_lft 1730sec preferred_lft 1730sec
    inet6 fe80::6457:2ffa:13e4:bb8b/64 scope link noprefixroute
        valid_lft forever preferred_lft forever
vipassana@vipassana-VMware-Virtual-Platform:~$
```

Client IP

```
vipassana@vipassana-VMware-Virtual-Platform:~$ ip addr
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
        valid_lft forever preferred_lft forever
    inet6 ::1/128 scope host noprefixroute
        valid_lft forever preferred_lft forever
2: ens33: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP group default qlen 1000
    link/ether 00:0c:29:02:9e:bc brd ff:ff:ff:ff:ff:ff
    altname enp2s1
    inet 192.168.182.128/24 brd 192.168.182.255 scope global dynamic noprefixroute ens33
        valid_lft 1683sec preferred_lft 1683sec
    inet6 fe80::d3a8:7451:adb7:3433/64 scope link noprefixroute
        valid_lft forever preferred_lft forever
vipassana@vipassana-VMware-Virtual-Platform:~$
```

Sample Code Working

```
vipassana@vipassana-VMware-Virtual-Platform:~$ gcc server.c -o server
vipassana@vipassana-VMware-Virtual-Platform:~$ ./server 51717
Here is the message: Hello My name is Vipassana How are u

vipassana@vipassana-VMware-Virtual-Platform:~$
```

```
vipassana@vipassana-VMware-Virtual-Platform:~$ gcc client.c -o client
vipassana@vipassana-VMware-Virtual-Platform:~$ ./client 192.168.182.129 51717
Please enter the message: Hello My name is Vipassana How are u
I got your message
vipassana@vipassana-VMware-Virtual-Platform:~$
```

Multiple clients on 1 server

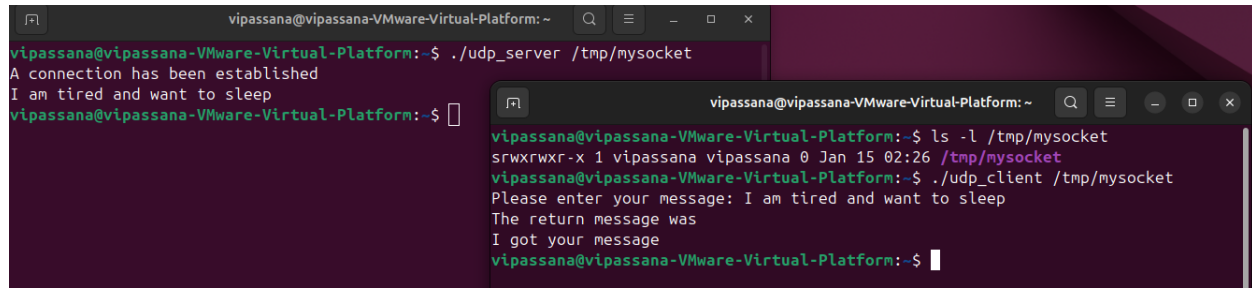
```
vipassana@vipassana-VMware-Virtual-Platform:~$ gcc change_server.c -o change_server
vipassana@vipassana-VMware-Virtual-Platform:~$ ./change_server 51717
Here is the message: Nice to met u too

Here is the message: Meow Woof Moooo
```

```
vipassana@vipassana-VMware-Virtual-Platform:~$ ./client 192.168.182.129 51717
Please enter the message: Nice to met u too
I got your message
vipassana@vipassana-VMware-Virtual-Platform:~$
```

```
vipassana@vipassana-VMware-Virtual-Platform:~$ ./client 192.168.182.129 51717
Please enter the message: Meow Woof Moooo
I got your message
vipassana@vipassana-VMware-Virtual-Platform:~$
```

Unix communication



The image shows two terminal windows from a VMware environment. The left window shows a user running a UDP server program. The right window shows the same user running a UDP client program that sends a message to the server and receives a response.

```
vipassana@vipassana-VMware-Virtual-Platform: ~  
vipassana@vipassana-VMware-Virtual-Platform:~$ ./udp_server /tmp/mysocket  
A connection has been established  
I am tired and want to sleep  
vipassana@vipassana-VMware-Virtual-Platform:~$  
  
vipassana@vipassana-VMware-Virtual-Platform:~$ ls -l /tmp/mysocket  
srwxrwxr-x 1 vipassana vipassana 0 Jan 15 02:26 /tmp/mysocket  
vipassana@vipassana-VMware-Virtual-Platform:~$ ./udp_client /tmp/mysocket  
Please enter your message: I am tired and want to sleep  
The return message was  
I got your message  
vipassana@vipassana-VMware-Virtual-Platform:~$
```