

Great! You're setting up a VirtualBox environment with two Ubuntu VMs and learning file transfer using scp. Let's go step-by-step to ensure everything works smoothly.

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### Prerequisites

- A computer with virtualization enabled (check BIOS/UEFI settings)
  - Internet connection
  - Around 10 GB free space
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### STEP-BY-STEP GUIDE

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#### **Step 1: Install Oracle VirtualBox**

1. Go to <https://www.virtualbox.org/wiki/Downloads>
  2. Download the latest version for your OS (Windows/Mac/Linux).
  3. Install it like any normal application.
  4. **Reboot your PC** after installation.
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#### **Step 2: Download Ubuntu 64-bit VMDK Image**

You'll need a pre-installed Ubuntu image (in VMDK format).

##### **Option 1 or Option 2:**

- You can get from:
    - <https://www.osboxes.org/ubuntu/>
  - Make sure it's for **VirtualBox** and in **VMDK** format.
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#### **Step 3: Create Virtual Machine in VirtualBox**

1. Open VirtualBox.
2. Click **New**.
3. Name: Ubuntu1
4. Type: Linux
5. Version: Ubuntu (64-bit)
6. Memory: 1024 MB or more
7. Hard disk: Select "**Use an existing virtual hard disk file**"

8. Click the folder icon and choose the **downloaded .vmdk file**
9. Click **Create**

Repeat the same process for **second VM** (Name: Ubuntu2).

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#### **Step 4: Create a NAT Network**

1. Go to **File → Preferences → Network**
  2. Click the **NAT Networks** tab
  3. Click the **plus (+)** icon to add a new NAT Network
  4. Click **gear icon** to edit:
    - **Name:** My VMbox Network
    - **CIDR:** 172.168.2.0/24
  5. Save it
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#### **Step 5: Attach VMs to NAT Network**

1. Select each VM → **Settings → Network**
  2. Adapter 1 → **Attached to:** NAT Network
  3. Choose My VMbox Network from the dropdown
  4. Click **OK**
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#### **Step 6: Launch Both VMs**

1. Start both VMs (Ubuntu1 and Ubuntu2)
  2. Login (use default credentials from the VMDK provider, e.g., osboxes / password: osboxes.org)
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#### **Step 7: Install net-tools to See IP**

On both VMs, open terminal and run:

```
sudo apt update
```

```
sudo apt install net-tools
```

Then to see the IP address:

```
ifconfig
```

Look for enp0s3 or eth0 interface:

You'll get something like: inet 172.168.2.4

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### **Step 8: Create a File and Write into It**

On **Ubuntu1**:

```
touch transfer.txt
```

```
nano transfer.txt
```

Write:

```
Hey, how are you?
```

Press Ctrl + X, then Y, then Enter to save.

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### **Step 9: Transfer File Using SCP**

Find out the IP of **Ubuntu2** (e.g., 172.168.2.5).

On **Ubuntu1**, run:

```
scp transfer.txt vagrant@172.168.2.5:/home/vagrant
```

Replace vagrant with your actual username

Enter the password when prompted.

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**Test:**

On Ubuntu2, check if the file is received:

```
ls
```

```
cat transfer.txt
```

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Would you like me to share a download link for a reliable Ubuntu .vmdk image?