

# AI-02023 Ubuntu Server Post Installation

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**Can Ubuntu Server 24.04.3 run on non-uefi laptop? I've been unsuccessful with the Server and the Workstation version. Enlighten with step by step.**

Yes, you can install Ubuntu Server 24.04.3 on a non-UEFI laptop that uses a traditional BIOS. While most modern systems are UEFI, the installation process for older, BIOS-based machines is still supported. The key is to ensure that your bootable USB is created in a way that is compatible with

**Legacy BIOS and that you select the correct boot option during startup.**

## Step-by-Step Installation on a Legacy BIOS System

- **Create the Bootable USB:** Use a tool like Rufus (for Windows) or mkusb (for Ubuntu) to create your bootable USB drive. When creating the drive, be sure to select the MBR partition scheme and set the target system to BIOS or MBR. This is the most critical step, as a drive formatted for UEFI will not boot on a legacy system.
- **Access the BIOS/Boot Menu:** Insert the bootable USB into the laptop. Restart the computer and immediately press the designated key to enter the BIOS or boot menu. Common keys include F2, F10, F12, or Delete.
- **Set Boot Priority:** In the BIOS settings, find the "Boot" or "Boot Order" menu. Make sure the USB drive is at the top of the boot priority list. Some systems may have separate options for "Legacy" or "CSM" (Compatibility Support Module) which you may need to enable or prioritize over UEFI.
- **Start the Installer:** Save the BIOS settings and exit. The computer should now boot from your USB drive and launch the Ubuntu Server installer. The installer

will automatically detect that it's running in legacy mode and configure the system accordingly, including using the MBR partition scheme.

- **Partitioning:** The installer will guide you through the partitioning process. For a BIOS-based system, you do not need to create an EFI System Partition (ESP). You can generally let the installer use the entire disk or set up manual partitions with a root partition (/) and a swap partition. The boot loader (GRUB) will be installed to the MBR of the primary disk.
- **Complete the Installation:** Follow the remaining prompts to set your language, keyboard layout, and user account information. The installer will proceed to copy files and configure the system. Once finished, you will be prompted to reboot, at which point you should remove the USB drive.

**List the sudo commands to execute post installation. I want to install GUI desktop, Remote SSH, Remote RDP from Windows, Microsoft Edge browser, Nautilus, add user rarcayanrdp for Remote Desktop use and configure the server with all the directories needed for rarcayanrdp.**

Yes, Ubuntu Server can run on non-UEFI laptops. The key is to create the bootable USB using a legacy-compatible tool and configure your laptop's BIOS to boot in legacy mode.

### Post-Installation Commands

Here are the sudo commands to execute after installing Ubuntu Server to get the GUI, remote access, and user setup you need.

#### 1. Update the System

Always start by updating the package list and upgrading any installed packages.

```
sudo apt update  
sudo apt upgrade -y
```

#### 2. Install a GUI Desktop

To get a graphical user interface, you need to install a desktop environment. The commands below install Ubuntu Desktop, which uses GNOME.

```
sudo apt install ubuntu-desktop -y
```

#### 3. Install Remote Access Tools

- Remote SSH: This is essential for secure remote command-line access. It's often installed by default on Ubuntu Server, but it's good to ensure it's there and running.

```
sudo apt install openssh-server -y
sudo systemctl status ssh
```

- Remote RDP from Windows: To connect via Remote Desktop Protocol, you'll need a service like `xrdp`.

```
sudo apt install xrdp -y
sudo systemctl enable --now xrdp
```

After installing, you can find the IP address of your server using the following command to connect to it from a Windows machine.

```
ip a
```

## 1. Install Applications

- Nautilus: This is the default file manager for the GNOME desktop, providing a graphical way to manage files and folders.

```
sudo apt install nautilus -y
```

- Microsoft Edge Browser: To install Microsoft Edge, you first need to add Microsoft's official GPG key and repository.

```
sudo curl -fSsL https://packages.microsoft.com/keys/microsoft.asc | sudo gpg --dearmor | sudo tee
/usr/share/keyrings/microsoft-edge.gpg > /dev/null
sudo sh -c 'echo "deb [arch=amd64 signed-by=/usr/share/keyrings/microsoft-edge.gpg]
https://packages.microsoft.com/repos/edge stable main" > /etc/apt/sources.list.d/microsoft-edge.list'
sudo rm /etc/apt/sources.list.d/microsoft-edge.list.save
sudo apt update
sudo apt install microsoft-edge-stable -y
```

## 1. Add and Configure the New User

- Add the User `rarcayanrdp`: This command creates the new user and sets up their home directory.

```
sudo adduser rarcayanrdp
```

- Add User to the `sudo` Group (Optional): If you want this user to have administrative privileges, add them to the `sudo` group.

```
sudo usermod -aG sudo rarcayanrdp
```

- Create Necessary Directories: Use `mkdir` with the `-p` option to create a nested directory structure for the new user. You will need to switch to that user to create the directories in their home folder.

```
sudo su - rarcayanrdp
mkdir -p /home/rarcayanrdp/Documents /home/rarcayanrdp/Downloads /home/rarcayanrdp/Pictures
/home/rarcayanrdp/Videos
exit
```

## List the scripts to install VS Code and Git

Of course. Here are the scripts to install Visual Studio Code (VS Code) and Git on your Ubuntu Server. The scripts use the apt package manager, which is the most common and recommended method for Ubuntu, as it ensures you get updates and security patches through the standard system update process.

### Script to Install Git

Git is often pre-installed on Ubuntu, but this script ensures you have the latest stable version and verifies the installation.

```
#!/bin/bash
```

## Update the system package list

```
sudo apt update
```

## Install Git

```
sudo apt install git -y
```

## Verify the installation and show the Git version

```
echo "Git installation complete. Installed version:"
```

```
git --version
```

How to Use:

- Save the code as a file, for example, install\_git.sh.
- Make the file executable: `chmod +x install_git.sh`
- Run the script: `sudo ./install_git.sh`

Script to Install Visual Studio Code

This script adds the official Microsoft repository for VS Code, imports the GPG

key, updates the package list, and then installs VS Code. This method is the best way to keep your VS Code installation up-to-date.

```
#!/bin/bash
```

## Update the system package list

```
sudo apt update
```

## Install necessary dependencies

```
sudo apt install software-properties-common apt-transport-https wget -y
```

## Import the Microsoft GPG key

```
wget -qO- https://packages.microsoft.com/keys/microsoft.asc | gpg --dearmor > packages.microsoft.gpg  
sudo install -D -o root -g root -m 644 packages.microsoft.gpg /etc/apt/keyrings/packages.microsoft.gpg
```

## Add the VS Code repository to your system

```
sudo sh -c 'echo "deb [arch=amd64 signed-by=/etc/apt/keyrings/packages.microsoft.gpg]  
https://packages.microsoft.com/repos/code stable main" > /etc/apt/sources.list.d/vscode.list'
```

## Clean up the GPG key file

```
rm packages.microsoft.gpg
```

## Update the package list again to include the new repository

```
sudo apt update
```

## Install Visual Studio Code

```
sudo apt install code -y
```

# Verify the installation and show the VS Code version

```
echo "Visual Studio Code installation complete. Installed version:"  
code --version
```

How to Use:

- Save the code as a file, for example, `install_vscode.sh`.
- Make the file executable: `chmod +x install_vscode.sh`
- Run the script: `sudo ./install_vscode.sh`  
Important Note: Since you are installing a desktop GUI on a server, and you plan to use it for remote access, you will need to start the GUI session after logging in.
- If you're physically at the machine, you can launch the GUI and then VS Code and Git will be available in the applications menu and from the terminal.
- If you're using RDP, the installed applications will be available within the remote desktop session.

## How to install cockpit

Installing Cockpit on an Ubuntu server is a straightforward process since it is included in the default Ubuntu package repositories. Here are the commands you need to execute:

### Step 1: Install Cockpit

First, update the package list on your server to ensure you're getting the latest available packages. Then, install the cockpit package.

```
sudo apt update  
sudo apt install cockpit -y
```

### Step 2: Enable and Check the Service

The `cockpit.socket` service is enabled and started automatically upon installation. You can check its status to verify it's running correctly.

```
sudo systemctl status cockpit.socket
```

### Step 3: Configure the Firewall

Cockpit listens on TCP port 9090. If you are using a firewall, such as UFW (Uncomplicated Firewall), you must allow connections to this port for the web interface to be accessible from other computers on your network.

```
sudo ufw allow 9090/tcp
sudo ufw reload
```

### Step 4: Access the Cockpit Web Interface

Once the installation is complete and the firewall is configured, you can access the Cockpit web interface from any web browser on your network.

Open your browser and navigate to: `https://<your_server_ip>:9090`

You will be presented with a login page. Use your Ubuntu server's username and password (you'll need a user with sudo privileges for full administrative access).

The initial connection will likely show a security warning because Cockpit uses a self-signed certificate, which you can safely bypass for local or private use.

### How to manage Ubuntu Server with Cockpit

This video is relevant because it provides a visual guide on how to manage an Ubuntu Server using the Cockpit web interface, which is a great way to see the end result of the installation process.

### List Install command to install Webmin and Ajenti

Installing server administration panels like Webmin and Ajenti can make managing your Ubuntu server much easier through a graphical interface. Here are the commands for each.

#### Webmin Installation

The most reliable way to install Webmin is by adding its official repository to your system, as this ensures you get the latest version and updates.

- Download the Webmin setup script:

This script automatically adds the repository and GPG key for you.

```
curl -o webmin-setup-repo.sh https://raw.githubusercontent.com/webmin/webmin/master/webmin-setup-repo.sh
```

- Run the script:

```
sudo sh webmin-setup-repo.sh
```

- Install Webmin:

The script adds the Webmin package to your system. Now you can install it.

```
sudo apt install webmin --install-recommends -y
```

- Configure Firewall (if you have one enabled):  
Webmin uses TCP port 10000. Allow it through your firewall.

```
sudo ufw allow 10000/tcp
```

- Access Webmin:  
Open your web browser and navigate to `https://<your_server_ip>:10000`. You'll log in with your system's username and password.

#### Ajenti Installation

Ajenti also has an official repository and an automated installation script which is the recommended method.

- Add the repository and key manually:  
Ajenti is not in the default Ubuntu repositories, so you must first add the GPG key and the repository.

```
wget -qO- https://repo.ajenti.org/debian/key | sudo apt-key add -  
echo "deb https://repo.ajenti.org/ng/debian main main ubuntu" | sudo tee /etc/apt/sources.list.d/ajenti.list
```

- Update your package list:

```
sudo apt update
```

- Install Ajenti:

```
sudo apt install ajenti -y
```

- Configure Firewall:  
Ajenti uses TCP port 8000. You must allow this port through your firewall.

```
sudo ufw allow 8000/tcp
```

- Access Ajenti:  
Open your web browser and go to `https://<your_server_ip>:8000`. The default login credentials are username: root and password: admin. It's crucial to change this password immediately after logging in for security reasons.

#### How to Install Ajenti Control Panel on Ubuntu 22.04

This video provides a visual walkthrough of installing Ajenti on Ubuntu, which can be helpful to see the commands in action and verify your installation.

### List command to install Timeshift and Clonezilla

To install Timeshift and Clonezilla on your Ubuntu Server, you can use the apt package manager. Timeshift is great for creating system snapshots, while

Clonezilla is a powerful tool for disk imaging and cloning.

### Timeshift Installation

Timeshift is a popular system snapshot tool that creates incremental backups of your operating system files. This is very useful for rolling back your system to a previous state if something goes wrong, like after a bad software update. It's available in the default Ubuntu repositories.

- Update your package list: It's a good practice to ensure your package list is up-to-date before installing new software.

```
sudo apt update
```

- Install Timeshift: Use the apt install command to install the package.

```
sudo apt install timeshift -y
```

After installation, you can launch Timeshift from the terminal using timeshift (if you have a GUI) or sudo timeshift-launcher and follow the on-screen prompts to configure your backups.

### Clonezilla Installation

Clonezilla is a powerful tool for disk cloning and imaging. However, it's typically used as a live environment (booting from a USB drive or CD) to back up or restore a whole disk or partition, as it requires the disk to be unmounted during the process. While you can install it on your running system, it's usually not used in this way for creating a backup of the system you're currently booted into.

The clonezilla package is available in the Ubuntu repositories and can be installed with a simple command.

- Update your package list:

```
sudo apt update
```

- Install Clonezilla:

```
sudo apt install clonezilla -y
```

Once installed, you can start the text-based graphical interface by typing sudo clonezilla in the terminal.

It's important to understand that while you've installed the program on your system, the most common and effective way to use Clonezilla for a full system backup is by creating a bootable USB drive with the Clonezilla Live image.

### How To Install TimeShift On Ubuntu

This video is a useful guide on installing and setting up Timeshift on Ubuntu, which directly relates to one of the installation commands you asked for.