

How to Install Parrot OS

Learn how to install Parrot OS on your computer with our step-by-step guide. Discover installation methods, system requirements, and troubleshooting tips for a smooth setup.

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Introduction

Parrot OS is a free and open-source Debian-based desktop Linux distribution designed for developers, IT security experts, system administrators, and privacy-centric users. It's best known as an alternative to Kali Linux, and offers a wide range of security and digital forensic tools available through the default Mate desktop environment. This article explains how to install Parrot OS on a Vultr server instance and set up remote access.

Prerequisites

- Deploy a [new Debian 11 server](#). We recommend using a server with at least 4 GB of RAM.
- Create a non-root user with sudo privileges on the server.
- Log in as the non-root user through SSH.

This article uses the example IP address `192.0.2.1` and username `example-user`. Replace these with your values.

1. Set up a Debian Desktop

By default, Parrot OS uses the Mate desktop environment. Install Mate along with a desktop display manager such as `lightdm` in the following steps.

1. Install the Mate desktop environment.

```
$ sudo apt install mate-desktop-environment -y
```

2. Install the Lightdm display manager.

```
$ sudo apt install lightdm lightdm-gtk-greeter -y
```

3. Start Lightdm.

```
$ sudo systemctl start lightdm
```

4. Confirm that Lightdm is up and running.

```
$ sudo systemctl status lightdm
```

5. Change the default server environment from terminal to desktop.

```
$ sudo systemctl set-default graphical.target
```

6. Restart the server to save changes.

```
$ sudo reboot
```

2. Install NoMachine

1. Visit the [official NoMachine website](#) in your desktop web browser.
2. Navigate to the **NoMachine for Linux** page.
3. Download the `NoMachine for Linux DEB amd64` package.
4. Open a new terminal session on your desktop computer. Windows users should open PowerShell.
5. Navigate to the directory you saved the download file, usually your Downloads folder.

```
$ cd ~/Downloads
```

6. Upload the NoMachine package to the server using Secure Copy.

```
$ scp nomachine_<version>_amd64.deb example-user@192.0.2.1:~/
```

Enter your server password when prompted.

7. When the upload is complete, SSH to the Debian server as your non-root user.

```
$ ssh example-user@192.0.2.1
```

8. Install the NoMachine package.

```
$ sudo apt install ./nomachine_<version>_amd64.deb
```

9. Configure the firewall to allow NoMachine connections.

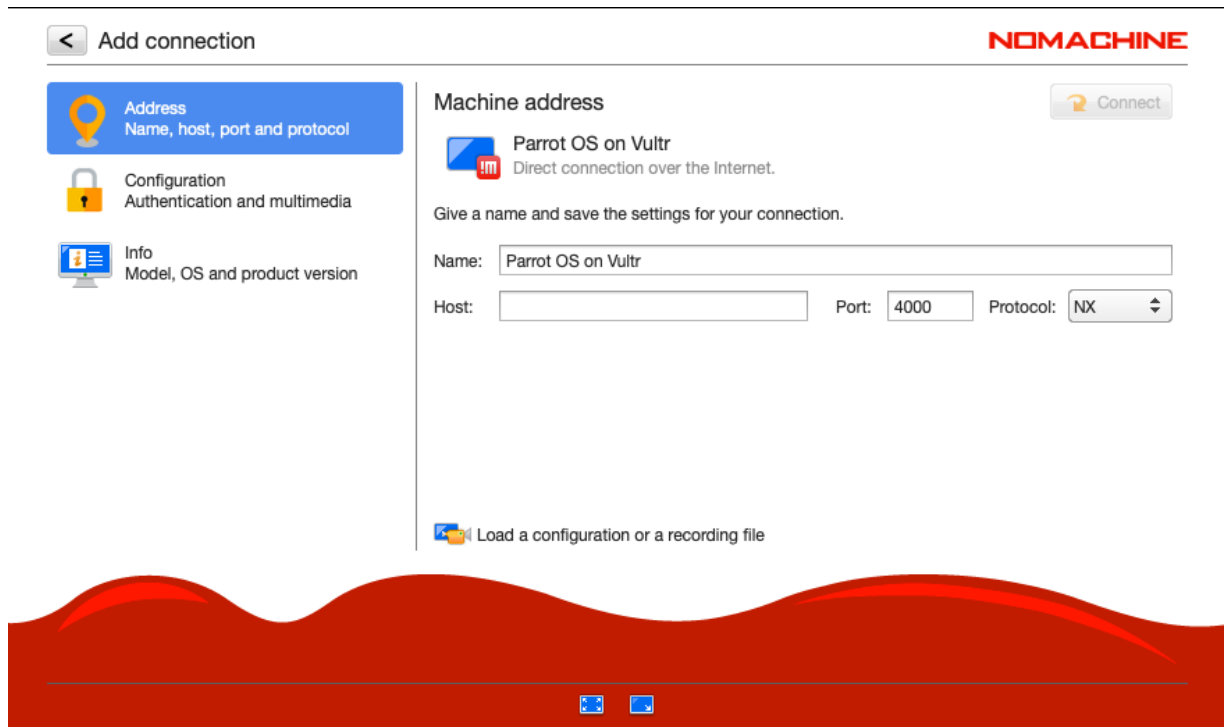
```
$ sudo ufw allow 4000/tcp
```

10. Restart the Firewall.

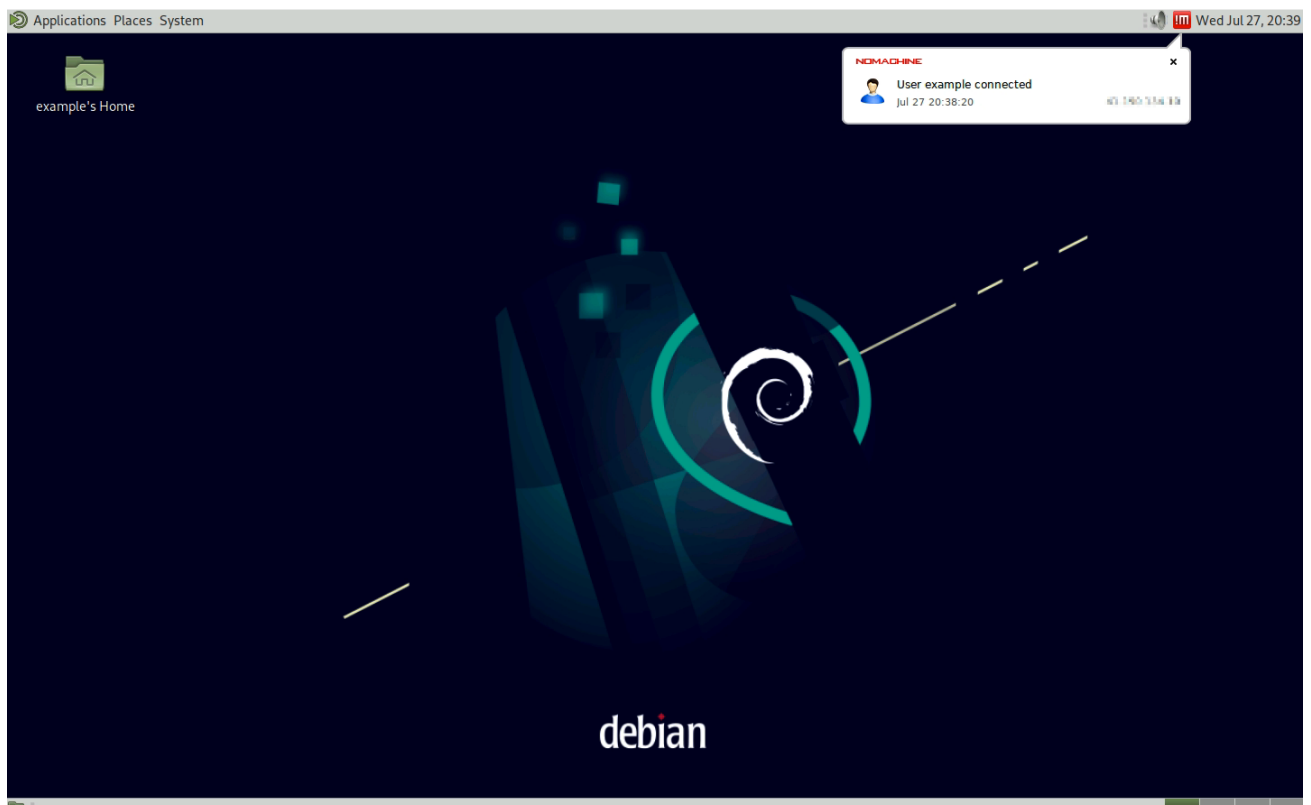
```
$ sudo ufw reload
```

3. Connect with NoMachine

1. Open your web browser and visit the NoMachine website at <https://nomachine.com>
2. Download and install NoMachine on your computer.
3. Open the NoMachine application from your computer's start menu.
4. In the Welcome to NoMachine tutorial window, click **OK** to proceed.
5. On the **Machines** page, click **Add**. Enter a Name (label) for your connection, enter your Debian server IP address in the **Host:** field, and keep `4000` as the **Port**, `NX` as the protocol.



6. Click **Connect** to establish a connection, and accept the server certificate fingerprint.
7. Enter your **Username** and **Password**, then click **Login** to access your Debian server desktop.



4. Install Parrot OS

1. On your Debian desktop. Click **Applications**, navigate to **System Tools** and click **Mate Terminal**
2. In the terminal window, update the server.

```
$ sudo apt update
```

3. Install git.

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

4. Clone the Parrot OS repository.

```
$ git clone https://nest.parrotsec.org/build/alternate-install.git
```

5. Switch to the `alternate-install` directory.

```
$ cd alternate-install
```

6. Add execution privileges on the `parrot-install.sh` file.

```
$ sudo chmod +x parrot-install.sh
```

7. Run the script.

```
$ sudo ./parrot-install.sh
```

8. Select your desired Parrot OS edition. This guide uses the Security edition (option 3).

```
Choose your edition.
```

```
*****
```

```
Welcome to Parrot On-Debian Installer Script
```

```
rev 0.3 - 2020-03-19
** 1) Install Core Only
** 2) Install Headless Edition
** 3) Install Security Edition
** 4) Install Home Edition
** 5) Install Embedded Edition
*****
Please enter a menu option and enter or enter to exit.
```

9. Enter **N** (case-sensitive) when prompted about the `sources.list` file.

```
Accept the following prompt. Enter N for No (it works)

Configuration file '/etc/apt/sources.list.d/parrot.list'
==> File on system created by you or by a script.
==> File also in package provided by package maintainer.
What would you like to do about it ? Your options are:
  Y or I : install the package maintainer's version
  N or O : keep your currently-installed version
  D      : show the differences between the versions
  Z      : start a shell to examine the situation
The default action is to keep your current version.
*** parrot.list (Y/I/N/O/D/Z) [default=N] ?
```

The Parrot OS installation starts and takes about 20 minutes to complete. If you receive any errors during the download process, run the script again.

During installation, additional prompts for `MAC address`, `sslh`, and `Wireshark` pop up, press enter to use the default options for each of the configurations.

10. When the installation is complete, check your Linux distribution information with the following command.

```
$ cat /etc/*release
```

Output:

```
PRETTY_NAME="Parrot OS 5.0 (Electro Ara)"
NAME="Parrot OS"
VERSION_ID="5.0"
```

```
VERSION="5.0 (Electro Ara)"  
VERSION_CODENAME=ara  
ID=parrot  
ID_LIKE=debian  
HOME_URL="https://www.parrotsec.org/"  
SUPPORT_URL="https://community.parrotsec.org/"  
BUG_REPORT_URL="https://community.parrotsec.org/"
```

11. Restart the Server to boot into the new Parrot OS system.

```
$ sudo reboot
```

5. How to Upgrade

1. Confirm your Parrot OS version.

```
$ cat /etc/issue
```

2. Update Parrot OS packages.

```
$ sudo apt update
```

3. Install Parrot Core.

```
$ sudo apt install parrot-core
```

4. Upgrade Parrot OS.

```
$ sudo parrot-upgrade
```

The command upgrades all existing server packages and the base Parrot OS system to the latest version. Follow the upgrade process and reply to any prompts until completion.

5. Reboot the server.

```
$ sudo reboot
```

You have successfully upgraded to the latest Parrot OS release. Access your Parrot OS desktop and navigate to **System Information**, or run `$ cat /etc/issue` in the terminal to verify your new Parrot OS version.

More Information

You have successfully installed Parrot OS on a Vultr Instance. For more information and configuration options, please visit the [official Parrot OS documentation](#).

Next Steps

Parrot OS contains powerful tools for security and penetration testing. Please familiarize yourself with Vultr's [Terms of Service](#) and [Acceptable Use Policy](#) before using your Parrot OS system.



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