

# **LAPORAN INSTALASI DAN KONFIGURASI APACHE DI UBUNTU SERVER**



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## Pendahuluan

Apache HTTP Server, yang sering disebut sebagai Apache, adalah salah satu server web yang paling populer dan banyak digunakan di seluruh dunia. Apache digunakan untuk mengirimkan konten web melalui protokol HTTP. Laporan ini akan membahas langkah-langkah untuk mengunduh dan menginstal Apache di sistem operasi Ubuntu Server.

## Langkah-langkah Instalasi

### 1. Masuk ke Server Ubuntu

Untuk memulai, kita harus terlebih dahulu masuk ke server Ubuntu menggunakan SSH atau akses fisik ke server.

### 2. Memastikan Sistem Terupdate

Sebelum menginstal Apache, pastikan sistem operasi Ubuntu sudah diperbarui ke versi terbaru dengan perintah:

```
raihan556@raihan:~$ sudo apt update
```

```
raihan556@raihan:~$ sudo apt upgrade_
```

### 3. Instalasi Apache

Untuk mengunduh dan menginstal Apache, gunakan perintah berikut:

```
raihan556@raihan:~$ sudo apt install apache2
[sudo] password for raihan556:
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
```

### 4. Memulai dan Mengaktifkan Apache

Setelah proses instalasi selesai, Apache akan secara otomatis dimulai. Anda juga dapat memastikan bahwa Apache akan diaktifkan setiap kali sistem boot dengan perintah:

```
raihan556@raihan:~$ sudo systemctl status apache2
[sudo] password for raihan556:
Sorry, try again.
[sudo] password for raihan556:
● apache2.service - The Apache HTTP Server
   Loaded: loaded (/lib/systemd/system/apache2.service; enabled; vendor preset: enabled)
   Active: active (running) since Sun 2023-10-29 02:42:31 UTC; 33min ago
     Docs: https://httpd.apache.org/docs/2.4/
   Main PID: 949 (apache2)
    Tasks: 10 (limit: 984)
   Memory: 69.1M
      CPU: 1.492s
   CGroup: /system.slice/apache2.service
           └─ 949 /usr/sbin/apache2 -k start
              1023 /usr/sbin/apache2 -k start
              1024 /usr/sbin/apache2 -k start
              1025 /usr/sbin/apache2 -k start
              1026 /usr/sbin/apache2 -k start
              1027 /usr/sbin/apache2 -k start
              1568 /usr/sbin/apache2 -k start
              1575 /usr/sbin/apache2 -k start
              1578 /usr/sbin/apache2 -k start
              1580 /usr/sbin/apache2 -k start

Oct 29 02:42:31 raihan systemd[1]: Starting The Apache HTTP Server...
Oct 29 02:42:31 raihan apachectl[765]: AH00558: apache2: Could not reliably determine the server's
Oct 29 02:42:31 raihan systemd[1]: Started The Apache HTTP Server.
Oct 29 02:42:31 raihan systemd[1]: Reloading The Apache HTTP Server...
Oct 29 02:42:32 raihan apachectl[980]: AH00558: apache2: Could not reliably determine the server's
Oct 29 02:42:32 raihan systemd[1]: Reloaded The Apache HTTP Server.
lines 1-26/26 (END)
```

Dengan menggunakan perintah tersebut kita bisa melihat apakah apache kita sudah aktif atau belum

## 5. Konfigurasi Firewall (opsional)

Jika Anda menggunakan firewall di server Anda, pastikan untuk mengizinkan lalu lintas HTTP dengan perintah berikut:

```
raihan556@raihan:~$ sudo ufw allow 'Apache'
Rule added
Rule added (v6)
raihan556@raihan:~$ _
```


## 6. Mengecek dan Menguji Server

Buka browser web dan akses alamat IP server atau nama domain jika sudah dikonfigurasi. Anda seharusnya melihat halaman selamat datang Apache yang menandakan bahwa instalasi berhasil.

Kita bisa melihat alamat IP kita dengan menggunakan perintah berikut :

```
raihan556@raihan:~$ hostname -I
10.9.105.32 172.17.0.1
raihan556@raihan:~$ _
```

Buka alamat IP di browser



# Apache2 Ubuntu Default Page

**It works!**

This is the default welcome page used to test the correct operation of the Apache2 server after installation on Ubuntu systems. It is based on the equivalent page on Debian, from which the Ubuntu Apache packaging is derived. If you can read this page, it means that the Apache HTTP server installed at this site is working properly. You should **replace this file** (located at `/var/www/html/index.html`) before continuing to operate your HTTP server.

If you are a normal user of this web site and don't know what this page is about, this probably means that the site is currently unavailable due to maintenance. If the problem persists, please contact the site's administrator.

### Configuration Overview

Ubuntu's Apache2 default configuration is different from the upstream default configuration, and split into several files optimized for interaction with Ubuntu tools. The configuration system is **fully documented in [/usr/share/doc/apache2/README.Debian.gz](#)**. Refer to this for the full documentation. Documentation for the web server itself can be found by accessing the **manual** if the `apache2-doc` package was installed on this server.

The configuration layout for an Apache2 web server installation on Ubuntu systems is as follows:

```
/etc/apache2/
|-- apache2.conf
|   |-- ports.conf
|-- mods-enabled
|   |-- *.load
|   |-- *.conf
|-- conf-enabled
|   |-- *.conf
|-- sites-enabled
|   |-- *.conf
```

- `apache2.conf` is the main configuration file. It puts the pieces together by including all remaining configuration files when starting up the web server.
- `ports.conf` is always included from the main configuration file. It is used to determine the listening ports for incoming connections, and this file can be customized anytime.
- Configuration files in the `mods-enabled/`, `conf-enabled/` and `sites-enabled/` directories contain particular configuration snippets which manage modules, global configuration fragments, or virtual host configurations, respectively.
- They are activated by symlinking available configuration files from their respective `*-available/` counterparts. These should be managed by using our helpers `a2enmod`, `a2dismod`, `a2ensite`, `a2disssite`, and `a2enconf`, `a2disconf`. See their respective man pages for detailed information.
- The binary is called `apache2`. Due to the use of environment variables, in the default configuration, `apache2` needs to be started/stopped with `/etc/init.d/apache2` or `apache2ctl`. **Calling `/usr/bin/apache2` directly will not work** with the default configuration.

### Document Roots

By default, Ubuntu does not allow access through the web browser to *any* file apart of those located in `/var/www`, **public\_html** directories (when enabled) and `/usr/share` (for web applications). If your site is using a web document root located elsewhere (such as in `/srv`) you may need to whitelist your document root directory in `/etc/apache2/apache2.conf`.

The default Ubuntu document root is `/var/www/html`. You can make your own virtual hosts under `/var/www`. This is different to previous releases which provides better security out of the box.

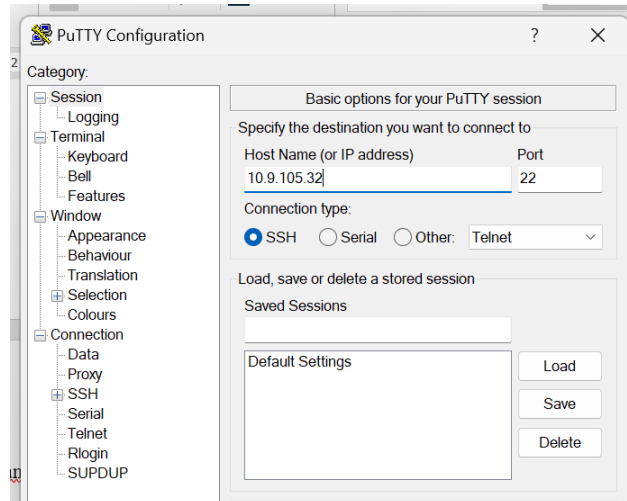
### Reporting Problems

Please use the `ubuntu-bug` tool to report bugs in the Apache2 package with Ubuntu. However, check **existing bug reports** before reporting a new bug.

Please report bugs specific to modules (such as PHP and others) to respective packages, not to the web server itself.

## 1. Selanjutnya Cara Melakukan Remote Menggunakan PuTTY

- Pastikan Anda telah menginstal Putty di komputer Anda. Anda dapat mengunduhnya di situs web resmi Putty.
- Buka Putty dan isi alamat IP atau nama host server Ubuntu di kolom "Host Name (or IP address)".



- Klik "Open" untuk memulai sesi SSH.
- Putty akan meminta Anda untuk memasukkan nama pengguna dan kata sandi Anda untuk server Ubuntu.

```
raihan556@raihan: ~
login as: raihan556
raihan556@10.9.105.32's password:
Welcome to Ubuntu 22.04.3 LTS (GNU/Linux 5.15.0-87-generic x86_64)

* Documentation:  https://help.ubuntu.com
* Management:    https://landscape.canonical.com
* Support:        https://ubuntu.com/advantage

System information as of Sun Oct 29 03:31:49 AM UTC 2023

System load:  0.03271484375   Processes:            139
Usage of /:   75.3% of 9.75GB Users logged in:                1
Memory usage: 45%            IPv4 address for docker0: 172.17.0.1
Swap usage:   0%             IPv4 address for enp0s3:  10.9.105.32

Expanded Security Maintenance for Applications is not enabled.

1 update can be applied immediately.
To see these additional updates run: apt list --upgradable

2 additional security updates can be applied with ESM Apps.
Learn more about enabling ESM Apps service at https://ubuntu.com/esm
```

- Setelah Anda masuk, Anda akan dapat mengakses server Ubuntu melalui konsol SSH Putty.

## 2. Remote dengan Command Line (SSH):

- Buka terminal atau command prompt pada komputer Anda.
- Untuk melakukan remote ke server Ubuntu, gunakan perintah SSH dengan mengetikkan:

```
Microsoft Windows [Version 10.0.22621.2428]
(c) Microsoft Corporation. All rights reserved.

C:\Users\raiha>ssh raihan556@10.9.105.32
```

- Anda akan diminta untuk memasukkan kata sandi.

```
C:\Users\raiha>ssh raihan556@10.9.105.32
raihan556@10.9.105.32's password: |
```

- Setelah masuk, Anda dapat mengelola server Ubuntu melalui command line.

```
C:\Users\raiha>ssh raihan556@10.9.105.32
raihan556@10.9.105.32's password:
Welcome to Ubuntu 22.04.3 LTS (GNU/Linux 5.15.0-87-generic x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:    https://landscape.canonical.com
 * Support:       https://ubuntu.com/advantage

System information as of Sun Oct 29 03:37:52 AM UTC 2023

System load:  0.0               Processes:            142
Usage of /:   75.3% of 9.75GB   Users logged in:     1
Memory usage: 44%              IPv4 address for docker0: 172.17.0.1
Swap usage:   0%               IPv4 address for enp0s3: 10.9.105.32

Expanded Security Maintenance for Applications is not enabled.

1 update can be applied immediately.
To see these additional updates run: apt list --upgradable

2 additional security updates can be applied with ESM Apps.
Learn more about enabling ESM Apps service at https://ubuntu.com/esm
```

## 3. Remote dengan Ubuntu Desktop:

Jika Anda ingin melakukan remote ke server Ubuntu dengan antarmuka grafis, Anda dapat menggunakan alat seperti "SSH X11 Forwarding" atau "VNC" (Virtual Network Computing). Berikut adalah contoh menggunakan SSH X11 Forwarding:

- Pastikan server Ubuntu telah mengizinkan X11 forwarding dengan mengedit file konfigurasi SSH di `/etc/ssh/sshd_config`:

```
raihan556@raiha:~$ sudo nano /etc/ssh/sshd_config

# Example of overriding settings on a per-user basis
#Match User anoncvs
#    X11Forwarding yes
#    AllowTcpForwarding no
```

- Simpan perubahan dan restart layanan SSH
- Di komputer lokal Anda (yang menjalankan Ubuntu Desktop), buka terminal.
- Gunakan perintah SSH dengan X11 forwarding:

```
C:\Users\raiha>ssh -X raihan556@10.9.105.32
raihan556@10.9.105.32's password: |
```

- Anda akan masuk ke server Ubuntu dan dapat menjalankan aplikasi grafis yang akan muncul di komputer lokal Anda.

```
C:\Users\raiha>ssh -X raihan556@10.9.105.32
raihan556@10.9.105.32's password:
Welcome to Ubuntu 22.04.3 LTS (GNU/Linux 5.15.0-87-generic x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:    https://landscape.canonical.com
 * Support:       https://ubuntu.com/advantage

System information as of Sun Oct 29 03:51:49 AM UTC 2023

System load:  0.0078125      Processes:           146
Usage of /:   75.3% of 9.75GB Users logged in:     1
Memory usage: 45%           IPv4 address for docker0: 172.17.0.1
Swap usage:   0%             IPv4 address for enp0s3: 10.9.105.32

Expanded Security Maintenance for Applications is not enabled.

1 update can be applied immediately.
To see these additional updates run: apt list --upgradable

2 additional security updates can be applied with ESM Apps.
Learn more about enabling ESM Apps service at https://ubuntu.com/esm

Last login: Sun Oct 29 03:37:52 2023 from 10.9.105.185
raihan556@raiha:~$ |
```

## Kesimpulan

Dalam laporan ini, saya telah membahas langkah-langkah untuk mengunduh dan menginstal Apache di Ubuntu Server. Setelah instalasi, Anda dapat mengkonfigurasi dan mengelola situs web Anda menggunakan Apache. Pastikan untuk menjaga sistem Anda tetap aman dengan mengikuti praktik-praktik keamanan yang dianjurkan dan selalu menjaga Apache dan sistem operasi Anda diperbarui.

Selain itu, saya juga telah menambahkan langkah-langkah untuk melakukan remote ke server Ubuntu menggunakan berbagai metode, seperti Putty (SSH), Command Line (SSH), dan Ubuntu Desktop (melalui antarmuka grafis). Ini memungkinkan Anda untuk mengelola server Anda dengan lebih fleksibel sesuai dengan preferensi Anda dan kebutuhan Anda.

Demikian laporan ini disusun dengan tambahan informasi tentang cara melakukan remote ke server Ubuntu. Terima kasih.