**Step-by-Step Guide for Installing Apache NiFi**

This document provides a step-by-step guide for installing and configuring Apache NiFi based on the command history used during the successful installation process.

**Prerequisites**

Ensure that your system has:

* Ubuntu or a Debian-based Linux OS
* Internet access for downloading packages
* Sufficient disk space

**Step 1: Update System Packages**

sudo apt update

**Step 2: Install OpenJDK 21**

Apache NiFi requires Java to run. Install OpenJDK 21:

sudo apt install openjdk-21-jdk -y

**Step 3: Download Apache NiFi**

Download the latest NiFi binary package from Apache’s official website:

wget -c https://dlcdn.apache.org/nifi/1.28.1/nifi-1.28.1-bin.zip

**Step 4: Install Unzip (if not installed)**

sudo apt install unzip

**Step 5: Extract the Downloaded File**

unzip nifi-1.28.1-bin.zip

**Step 6: Move NiFi to /opt Directory**

sudo mv nifi-1.28.1 /opt/nifi

**Step 7: Configure Environment Variables**

Add NiFi to the system path by updating ~/.bashrc:

echo 'export NIFI\_HOME=/opt/nifi' >> ~/.bashrc

echo 'export PATH=$NIFI\_HOME/bin:$PATH' >> ~/.bashrc

source ~/.bashrc

**Step 8: Start Apache NiFi**

/opt/nifi/bin/nifi.sh start

**Step 9: Verify NiFi is Running**

Check if NiFi is running by inspecting active processes:

ps -ef | grep nifi

Or check if the service is listening on port 8443:

netstat -ntlup | grep 8443

If net-tools is not installed, install it:

sudo apt install net-tools

**Step 10: Configure NiFi Properties (Optional)**

Modify nifi.properties as needed:

vi /opt/nifi/conf/nifi.properties

**Step 11: Restart NiFi (if configuration changes are made)**

/opt/nifi/bin/nifi.sh restart

**Step 12: Verify Logs for Issues**

Monitor NiFi logs to troubleshoot any issues:

tail -f /opt/nifi/logs/nifi-bootstrap.log

**Step 13: Set Timezone (Optional, if required)**

Set the system timezone:

sudo timedatectl set-timezone Asia/Kuala\_Lumpur

Enable network time synchronization:

sudo timedatectl set-ntp on

**Step 14: Access NiFi Web UI**

Once NiFi is running, access the web UI at:

https://<your-server-ip>:8443/nifi

**Note:** The default authentication settings will require configuration changes if needed.

This guide provides the necessary steps to install and configure Apache NiFi successfully. Ensure to check logs and verify the service status for smooth operation.