

# Receive GitHub webhooks on Jenkins without public IP

## Step 1: Create GitHub repository

First things first, we need to get a repository! If you haven't got GitHub account, get one. You will need it later to login to Webhook Relay too. Once you have logged into GitHub, look for a green "New Repository" button on the bottom right corner and click it.

## Step 2: Jenkins Installation (if you already have it - ignore this step)

Jenkins can easily be installed on Ubuntu by importing and adding the GPG keys to the system. Enabling the Jenkins repository:

```
wget -p -O - https://pkg.jenkins.io/debian/jenkins.io.key | sudo apt-key add -
```

Now, to configure the firewall for the Jenkins server using the UFW tool, we need to enable the firewall and open port 8080 for remote access from anywhere.

```
sudo ufw allow 8080
sudo ufw enable
sudo ufw reload
sudo ufw status
```

## Step 3: Setting up Jenkins with GitHub-Plugin

The easiest way to start receiving GitHub webhooks is by using this plugin

<https://plugins.jenkins.io/github>

- ✓ Go to your Jenkins plugin manager
- ✓ Find and install "GitHub plugin"
- GitHub API Plugin      -      GitHub Integration Plugin

## Step 4: Configuring Webhook Relay

First, you will have to register and download the agent. if you don't have an account yet (you can use GitHub OAuth option since you would already have an account with it).

<https://my.webhookrelay.com/login>

Or install with command below:

```
curl https://my.webhookrelay.com/webhookrelay/downloads/install-cli.sh | bash
sudo chmod +wx /usr/local/bin/relay
```

Reference: <https://docs.webhookrelay.com/installation-options/installation-options/install-cli>

## Step 5: Setting up Webhook Relay agent

To login with the CLI use token key/secret: <https://my.webhookrelay.com/tokens>

Copy the relay login and run on your machine:

```
$ relay login -k your-token-key -s your-token-secret
```

Now, you will then need to start forwarding webhooks to Jenkins:

```
$ relay forward --bucket github-jenkins http://localhost:8080/github-webhook/
```

## Step 6: Configuring Jenkins Job

When you want Jenkins to do something - create a job. In this case we will be using **Freestyle project**.