

# Jupyterhub Installation

- [Overview](#)
- [Set variables](#)
- [Download](#)
- [Install](#)
- [Configure](#)
- [Start](#)
- [References](#)

## Overview

This documents how Paul LaPlante and K. Scott Rowe installed Jupyterhub for the HERA group on herapost-master (a disked RHEL-7.9 machine). I used Miniconda3 to simplify and contain the installation.

## Set variables

```
export BASE=/lustre/aoc/projects/hera/heramgr/jupyter
```

## Download

<https://docs.conda.io/en/latest/miniconda.html>

## Install

User heramgr

Become the **heramgr** user

Deactivate conda

```
conda deactivate  
conda deactivate
```

Install Miniconda. Do not run conda init

```
bash Miniconda3-latest-Linux-x86_64.sh -p ${BASE}/miniconda3
```

Activate conda

```
source ${BASE}/miniconda3/bin/activate
```

#### Update Conda

```
conda update -y conda  
conda update -all
```

#### Install nodejs

```
conda install -y nodejs
```

#### Install jupyter and jupyterhub

```
conda install -c conda-forge jupyterhub notebook
```

#### Install batchspawner to work with Torque/Moab, Slurm, HTCondor, etc

```
pip install batchspawner
```

#### Install sshauthenticator

This allows jupyterhub to run as a non-root user yet still authenticate users.

```
pip install https://github.com/andreas-h/sshauthenticator/archive/v0.1.zip
```

#### Install wrapperspawner

This allows for menus to provide multiple job configurations

```
cd ${BASE}/git  
git clone https://github.com/jupyterhub/wrapspawner  
cd wrapspawner  
pip install .
```

#### Create secret cookie

```
openssl rand -hex 32 > ${BASE}/miniconda3/share/jupyterhub  
/jupyterhub_cookie_secret  
chmod go-rx ${BASE}/miniconda3/share/jupyterhub/jupyterhub_cookie_secret
```

#### Create sudoers file

Save the attached [nrao-jupyterhub](#) to `/etc/sudoers.d` so heramgr can sudo to users to launch jobs.

## Configure

### Config file

Save the attached [jupyterhub\\_config.py](#) to `${BASE}/jupyterhub_config.py`

### Startup script

Save the attached [jupyterhub\\_start.sh](#) to `${BASE}` then

```
chmod 755 ${BASE}/jupyterhub_start.sh
```

## Start





### Service file

Save the attached [nrao-jupyterhub.service](#) to `/etc/systemd/system` then

```
systemctl enable nrao-jupyterhub
systemctl start nrao-jupyterhub
```

## References

- <https://jupyterhub.readthedocs.io/en/stable/>

I	Attachment	Action	Size	Date	Who	Comment
	<a href="#">jupyterhub_config.py.txt</a>	<a href="#">manage</a>	39.4 K	24 Aug 2021 - 15:10	<a href="#">KScottRowe</a>	jupyterhub config file
	<a href="#">jupyterhub_start.sh</a>	<a href="#">manage</a>	0.7 K	24 Aug 2021 - 15:11	<a href="#">KScottRowe</a>	jupyterhub start script
	<a href="#">nrao-jupyterhub</a>	<a href="#">manage</a>	0.5 K	19 Aug 2021 - 19:35	<a href="#">KScottRowe</a>	/etc/sudoers.d file
	<a href="#">nrao-jupyterhub.service</a>	<a href="#">manage</a>	0.4 K	09 May 2022 - 19:43	<a href="#">KScottRowe</a>	/etc/systemd /system file

This topic: NM > WebHome > NMComputingInfrastructure > CidDoc > Software > JupyterHub

Topic revision: 09 May 2022, KScottRowe

Ideas, requests, problems regarding NRAO Staff Wiki? [Send feedback](#)