

# Modernize OpenDaylight's CI pipelines and containers

## Internship Projects/Mentors

Title	Modernize OpenDaylight's CI pipelines and containers
Status	INTERVIEWING
Difficulty	MEDIUM

## Description

OpenDaylight's CI [1.] jobs are presently using Jenkins-job-builder (JJB) [2.] with the entire job configuration maintained as code in the releng/builder [3.], releng/global-jjb [4.] and common-packer [5.] repositories. The CI infrastructure has around 2k+ jobs that are written using yaml/shell/python many of which need to migrate to CI pipelines. The pipeline job prototype should be able to do a complete lifecycle (from code changes picked up from merged/staged job to be deployed and tested on containers images (these images are equivalent of VM image instance - mininet, devstack, etc presently built on the infrastructure). The work requires updating the packer files to build containers and converting the JJB/yaml code to CI pipelines.

## Additional Information

[1.] <https://jenkins.opendaylight.org/releng/>

[2.] <https://jenkins-job-builder.readthedocs.io/en/latest/>

[3.] <https://github.com/opendaylight/releng-builder/>

[4.] <https://github.com/lfit/releng-global-jjb>

[5.] <https://github.com/lfit/releng-common-packer>

[6.] <https://github.com/lfit/releng-pipelines>

## Learning Objectives

The intern will gain experience contributing to OSS and OpenDaylight CI tools (not limited to Jenkins, pipelines, CI/CD, packer. etc).

## Expected Outcome

- Create Dockerfiles and containers images for all of the ODL projects
- Create Jobs that manage and maintain snapshots and releases for the containers
- Buildable container images using the packer files
- Migrate existing jobs to Jenkins pipeline jobs. (bonus)

## Relation to LF Networking

ODL

## Education Level

Undergraduate

## Skills

- Bash
- Python Programming
- JJB (bonus)
- Jenkins CI / Pipelines (bonus)
- packer (bonus points)

- Understanding of git/gerrit workflow and fix [trivial issues](#) (bonus)

## Future plans

These prototypes will be reviewed and releng/builder jobs and packer files would be updated.

## Preferred Hours and Length of Internship

20 hours a week for 24 weeks

## Mentor(s) Names and Contact Info

[Click here to apply](#)

Please read all instructions before applying. Include Resume, proof of school enrollment, and participation permission from school/employer

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