# Open Horizon Build Pipeline

The build pipeline for Open Horizon components exists solely in Jenkins Pipelines hosted internally by IBM. The goal of this document is to present a design to migrate from a closed-source internal build process to one that is externally visible and transparent and modifiable by the broader community.

Existing Build Pipeline

Internal Jenkins pipelines that build, deploy artifacts to Artifactory (CI), and deploy to test environments for e2e testing (CI/CD).
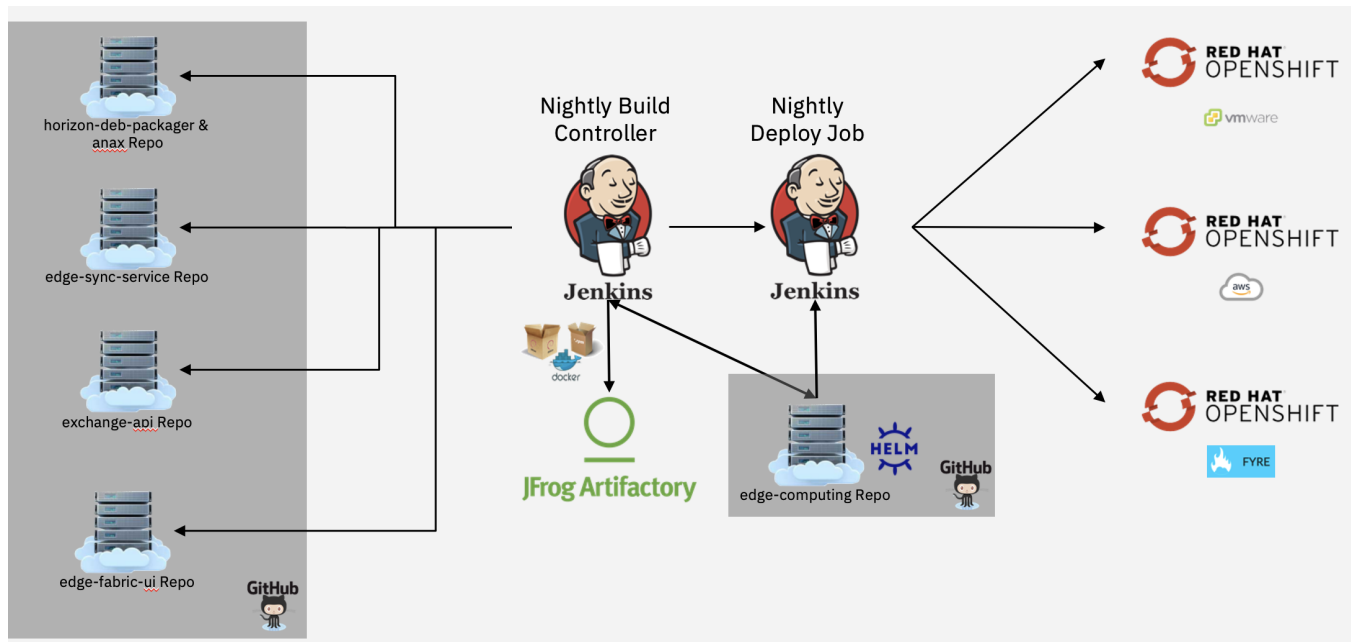
Pros:

- Code is being built and tested everyday
- Artifacts are stored and versioned and maintained
- Continually evolving process around the deployment and installation of IEAM via automation

Cons:

- All internal IBM processes. There is no visibility into how artifacts are built or what the process is for artifacts that are eventually deployed into Dockerhub
- Mostly done by one person. Common issue with being run over by a bus

Proposed Build Pipeline

GitHub Actions Externally and Jenkins Pipeline internally.

Future CI/CD Plans

GitHub

github.com

Anax
CSS/ESS
Exchange-API
SDO-Support

On Pull Request
Nightly

GitHub Actions

docker

docker

dockerhub

GitHub

github.ibm.com

Edge-Fabric-UI
Edge-Operator

On Pull Request
Nightly

Jenkins

Kubernetes
Operator

RPM, Debian, and
Docker Artifacts

docker

JFrog Artifactory

RED HAT OPENSHIFT

vmware

RED HAT OPENSHIFT

aws

RED HAT OPENSHIFT

FYRE