Container Pipeline
For
Devs and Enterprise

centos-devel@centos.org

@dharmit
Show of hands

- Attended/viewed the talk in DevConf.cz 2018?
- Used the service?
- Heard of the service?
- Maintain more than one container images?
Pipeline Features
Core features

- Pre-build
- Dockerfile linting
- Build the image
- Scan the image
- Deliver to registry
- Notify the user
Parent-child relationship

- You have 10 images based on a single image
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• What if there are 100 child/dependent images?

• CentOS Container Pipeline does this for you - automatically!
Feature summary

- Rebuild on every “git push”
- Rebuild upon parent image rebuild; updated image always!
- Weekly scanning of images
- Email notification for every build
Workflow
Dev → Merge PR into container-index

Pre-build required?

Yes → Run pre-build script

No → Lint, Build, Scan and Deliver image

Push to r.c.o

Pipeline Service

git push
Base image update
RPM update (soon)

Notification Email

Weekly Scan
Example yaml file

- id: 3
  app-id: gluster
  job-id: storagesig-heketi
  git-url: https://github.com/heketi/heketi
  git-branch: master
  git-path: extras/docker/centos
  target-file: Dockerfile
  desired-tag: latest
  notify-email: heketi-devel@gluster.org
  build-context: ./
  prebuild-script: ./prepare-build.sh
  prebuild-context: extras/docker/centos
  depends-on: centos/centos:latest
What changed in a year?
DevConf.cz 2018

- Same service, more features
- Email contained logs of various stages
- Dockerfile lint, build, scan, deliver
- Automatic rebuild on
  - git push
  - Parent image update
  - RPM update
DevConf.cz 2019

- Same service, more less features
- Web UI to show logs of various stages
- Dockerfile lint, build, scan, deliver
- Automatic rebuild on
  - git push
  - Parent image update
  - RPM update
OpenShift to the rescue!
Heterogeneous service; workers for every task
   ○ systemd services (dockerfile lint, scan, beanstalkd)
   ○ Linux containers (delivery, dispatcher)
   ○ OpenShift cluster (build)
   ○ ci.centos.org (pre-build)

Long deployment and upgrade cycles

Negative feedback from ops - Unmanageable

Firefighting
DevConf.cz 2019

- OpenShift native
- Quick development and deployment cycles
- Stability
- Better throughput
- Weekends are more fun now!
OpenShift native

- Jenkins Pipelines
- Every worker is now a stage in the pipeline
- One pod per build request
- No beanstalkd
- OpenShift + Jenkins orchestrate everything
- Switching to buildah very soon (no big fat daemons)
Issues!

- OKD 3.11 doesn’t allow custom Grafana dashboards
- OpenShift and Jenkins don’t sync with 100% precision
- Privileged mode
Purpose of this talk
We **NEED** more users
More users

- Our service needs more users
- CentOS infra hosts for about 3 years now
- Various upstream projects rely on it
- But we need more!
- Deploy it in private infra
- Contribute back to project
Distro agnostic!
Links

- [registry.centos.org](https://registry.centos.org)
- [https://github.com/CentOS/container-index/](https://github.com/CentOS/container-index/)
- [https://github.com/CentOS/container-pipeline-service](https://github.com/CentOS/container-pipeline-service)
- [centos-devel@centos.org](https://centos-devel@centos.org)
- [#centos-devel on Freenode](https://centos-devel@centos.org)
Feedback

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Thank you!