



Building Fedora Layered Container Images

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About me



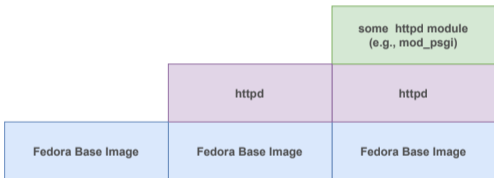
Fedora

Barely active Fedora package maintainer

Red Hat

OSBS and related container image build tooling

What are Layered Images?



```
FROM registry.fedoraproject.org/fedora:latest
```

```
LABEL com.redhat.component="hugo-container" \  
name="hugo" \  
version="0" \  
summary="Fast and flexible static site generator" \  
maintainer="Athos Ribeiro <athoscr@fedoraproject.org>"
```

```
RUN dnf install -y hugo && dnf clean all
```

```
VOLUME /var/lib/hugo/site  
WORKDIR /var/lib/hugo/site
```

```
# Expose port for live server
```

```
EXPOSE 1313
```

```
ENTRYPOINT ["hugo"]
```

```
CMD ["--help"]
```

Motivation

Docker Hub new rate limits

- ▶ Did that break your CI too?
- ▶ We could just move to some other registry (e.g., quay.io)

Fedora mass rebuilds*

Effortless dependency updates every 6 months!

Automatic rebuilds*

CVE? No problem! Rebuild all images with that CVE

* Features in place but not active in Fedora

Not possible for Docker Hub images yet

Who is tracking dependencies? We definitely are!



registry.fedoraproject.org



f33 unquilted search registries

```
["registry.fedoraproject.org", "registry.access.redhat.com", "registry.centos.org", "docker.io"]
```

rawhide unquilted search registries

```
["registry.fedoraproject.org", "registry.access.redhat.com", "docker.io", "quay.io"]
```

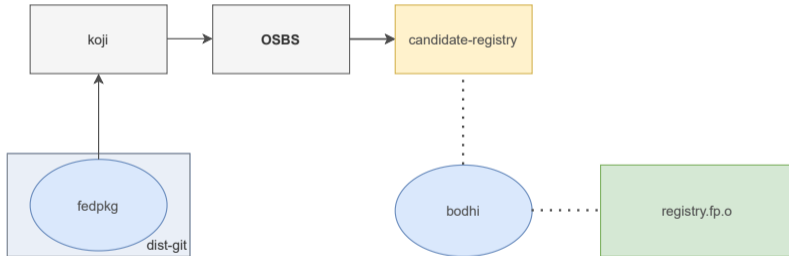
What can I ship in Fedora Layered Images?

- ▶ RPM packages
- ▶ Configurations
- ▶ Documentation
- ▶ Modules
- ▶ Flatpaks



How can I ship Fedora Layered Images?

- ▶ Similar process as for RPM packages
- ▶ Package Review Process

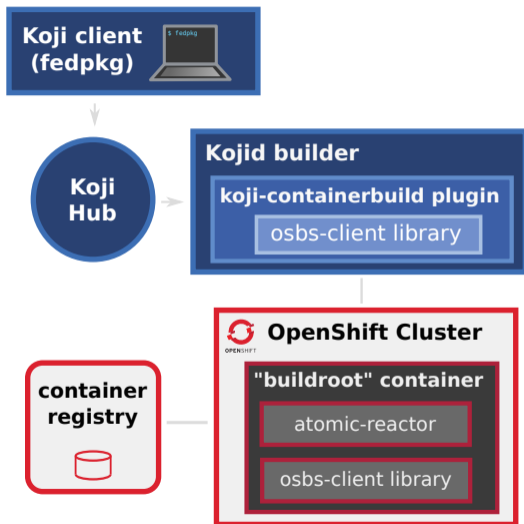


OSBS - OpenShift Build Service



- ▶ set of tools to build and release layered container images
- ▶ github.com/containerbuildsystem
- ▶ osbs.readthedocs.io

OSBS





DEMO

pagure.io/ContainerSIG/container-sig/issues



Tooling/processes need improvements

- ▶ Automated version labels?
- ▶ DISTTAG?
- ▶ Koji package separation from RPMs
- ▶ Container Review Process



Questions?

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Useful links

docs.fedoraproject.org/en-US/containers/guidelines/guidelines

pagure.io/ContainerSIG/container-sig/issues

osbs.readthedocs.io