Containerizing Middleware Applications

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2018-03-23

Definitions & Technologies

- Container
  - Docker
- Middleware
- Orchestration
  - Kubernetes
    - OpenShift

First Steps: Inheritance heirarchy

RHEL
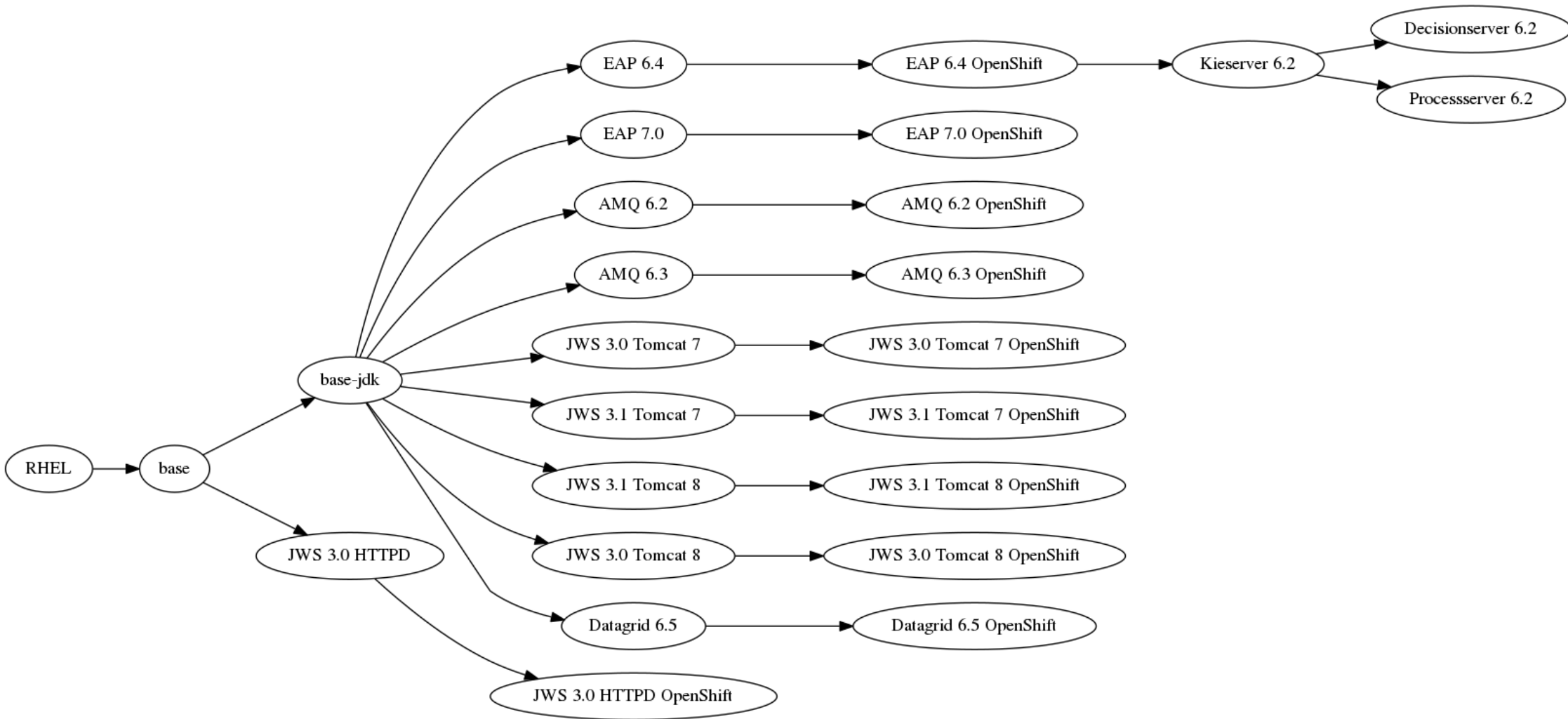   ↳ base
    ↳ base JDK
    ↳ standalone
    ↳ OpenShift

Dockerfile example

```
FROM jboss-base-7/jdk8:1.2
ENV JBOSS_IMAGE_VERSION=1.2
…
ADD some-script.sh /tmp
USER 0
RUN chmod +x /tmp/some-script.sh \
 && /tmp/some-script.sh           \
 && rm /tmp/some-script.sh         \
USER jboss
…
```

OpenShift Integration

- turning features off
- integrating features
- runtime configuration

Sharing scripts via inheritance

Artefacts and private URIs

```
ADD http://private.url/jboss-eap-7.0.0.GA.zip
…
```

Cekit

- Dockerfile pre-processor

image.yaml → cekit ⇒ Dockerfile,
artefacts,
shared scripts

https://github.com/cekit/cekit

Cekit YAML example

```yaml
name: "jboss-eap-7/eap71-openshift
description: "Red Hat JBoss Enterp
version: "1.2"
from: "jboss-eap-7/eap71:latest"
labels:
    - name: "com.redhat.component"
      value: "jboss-eap-7-eap71-op
    - name: "io.k8s.description"
      value: "Platform for buildin
```

Alternatives

- Ansible Container

https://docs.ansible.com/ansible-container/

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