



Red Hat

WILDFLY AND KUBERNETES HOW THEY PLAY TOGETHER

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AGENDA

WILDFLY TO KUBERNETES



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WILDFLY TO KUBERNETES

- s2i builds
- WildFly modules
- Galleon provisioning tool
- WildFly Operator

DEMO

- JAX-RS (rest endpoints)
- EJB
- JPA (Hibernate ORM)
- JMS (Messaging)
- JTA (Transactions)
- Clustering

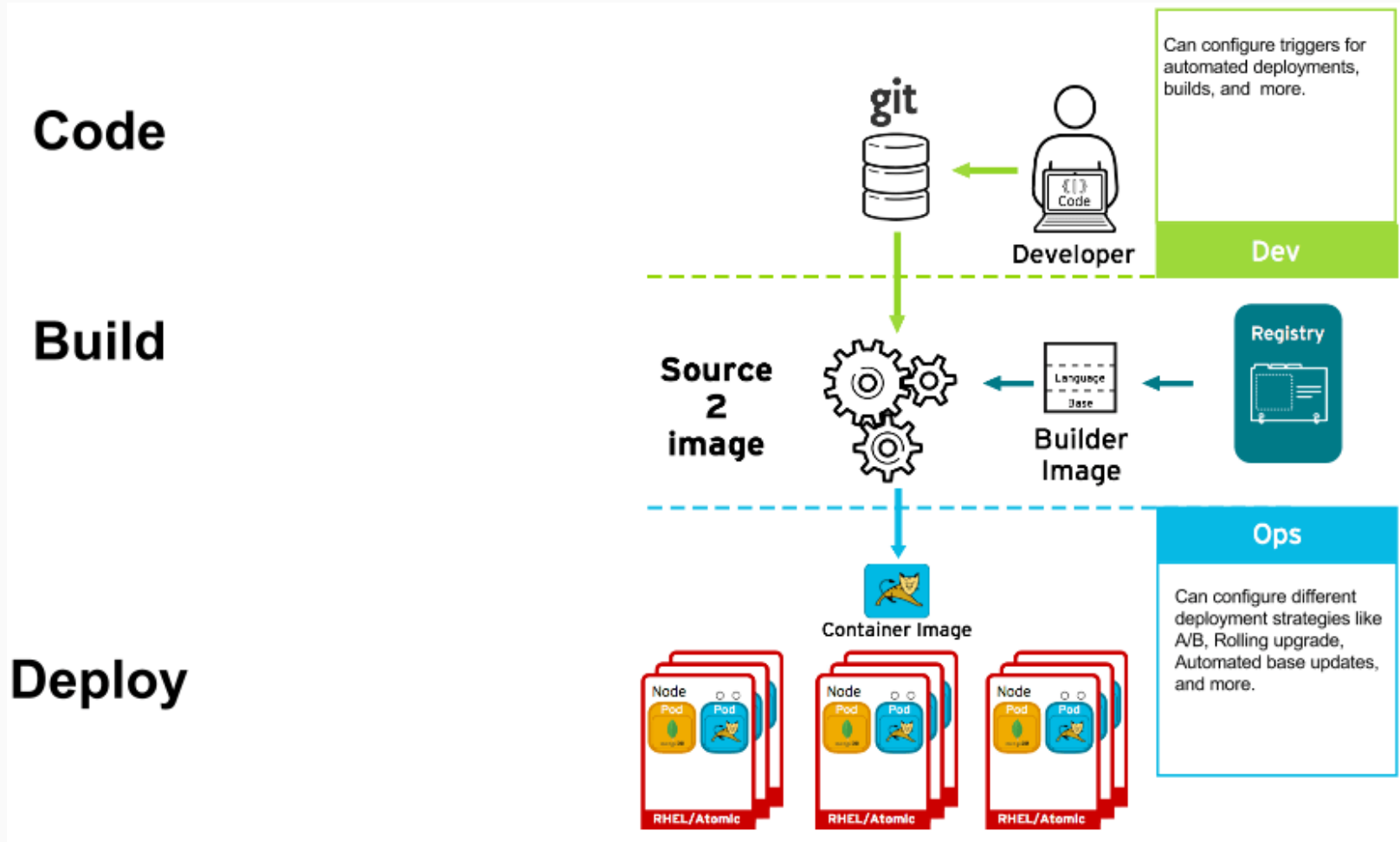
OK... AND NOW WHAT?

WILDFLY CONTAINERS

<https://quay.io/organization/wildfly>

- quay.io/wildfly/wildfly-centos7
- quay.io/wildfly/wildfly-runtime-centos7
- quay.io/wildfly/wildfly-operator

S2I



Source: <https://blog.openshift.com/save-yourself-from-the-next-glibc/>

s2i build

-e GALLEON_PROVISION_DEFAULT_FAT_SERVER=true
-e MAVEN_OPTS="-Dcom.redhat.xpaas.repo.jbossorg"

--context-dir helloworld

--ref 18.0.0.Final

<https://github.com/wildfly/quickstart>
quay.io/wildfly/wildfly-centos7

helloworld-wildfly-centos7

s2i build ← **s2i command to build**

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environmental variables configures how the build goes

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--context-dir helloworld ← directory where build is started

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↖ environmental variables configures how the build goes

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--ref 18.0.0.Final ← tag/branch

<https://github.com/wildfly/quickstart>

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↖ **environmental variables configures how the build goes**

--context-dir helloworld ← **directory where build is started**

--ref 18.0.0.Final ← **tag/branch**

<https://github.com/wildfly/quickstart> ← **the source code**

quay.io/wildfly/wildfly-centos7

helloworld-wildfly-centos7

s2i build ← **s2i command to build**

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--context-dir helloworld ← **directory where build is started**

--ref 18.0.0.Final ← **tag/branch**

<https://github.com/wildfly/quickstart> ← **the source code**

quay.io/wildfly/wildfly-centos7 ← **base docker image**

helloworld-wildfly-centos7

s2i build ← **s2i command to build**

-e GALLEON_PROVISION_DEFAULT_FAT_SERVER=true

-e MAVEN_OPTS="-Dcom.redhat.xpaas.repo.jbossorg"
↖ **environmental variables configures how the build goes**

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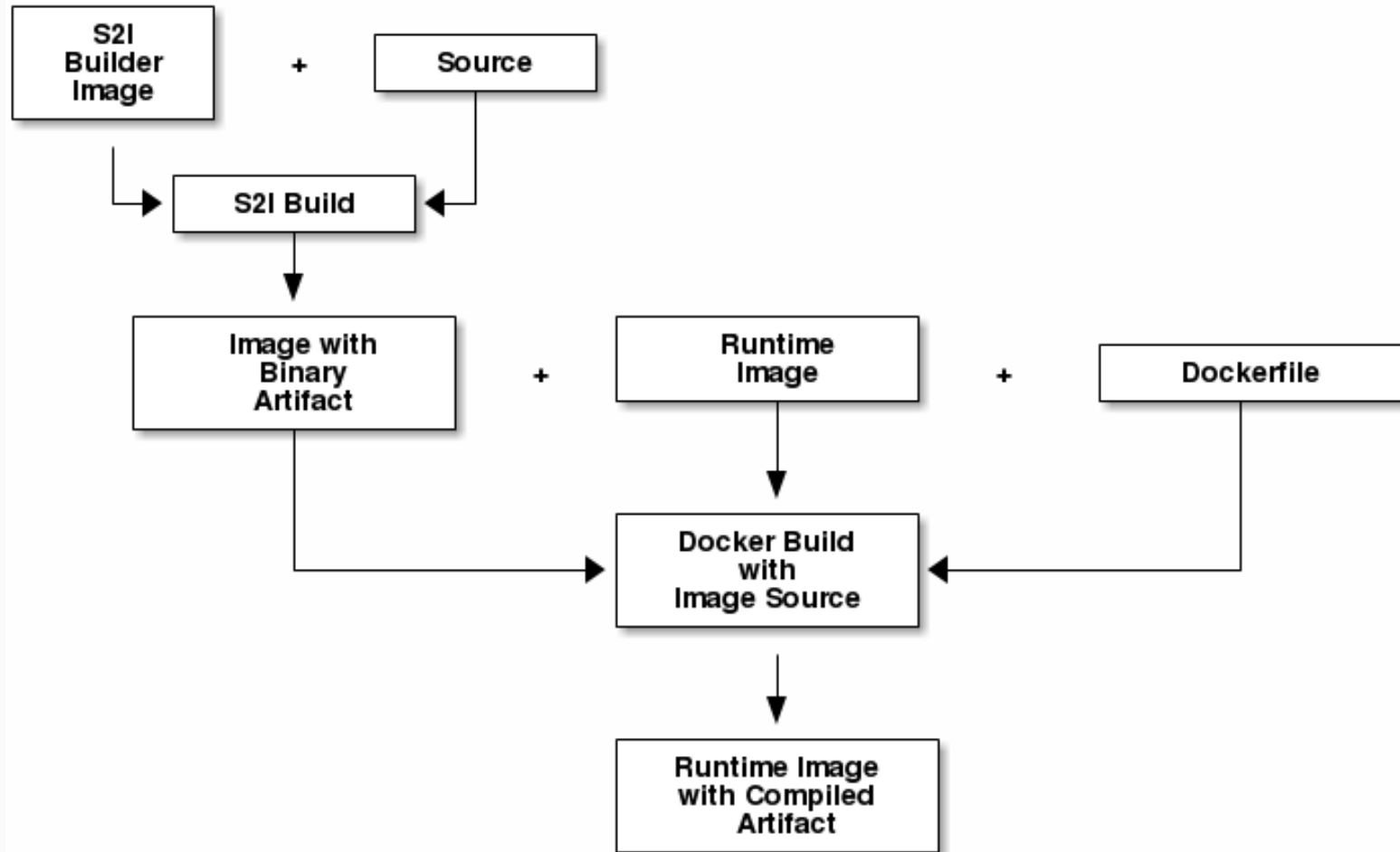
--ref 18.0.0.Final ← **tag/branch**

<https://github.com/wildfly/quickstart> ← **the source code**

quay.io/wildfly/wildfly-centos7 ← **base docker image**

helloworld-wildfly-centos7 ← **result docker image**

CHAINING BUILDS



Source: <https://blog.openshift.com/chaining-builds/>

WHY S2I

- Automatic container enhancements on build
- Galleon features available
- OpenShift integration
 - [wildfly/wildfly-s2i / wildfly-s2i-chained-build-template.yml](#)

GALLEON

```
galleon.sh install  
wildfly:current  
--layers=jaxrs,cdi  
--dir=my-wildfly-server
```

Galleon layers - XML descriptors for WildFly Core build

GALLEON

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galleon.sh install ← galleon command to install  
wildfly:current  
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Galleon layers - XML descriptors for WildFly Core build

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galleon.sh install ← galleon command to install  
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Galleon layers - XML descriptors for WildFly Core build

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Galleon layers - XML descriptors for WildFly Core build

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galleon.sh install ← galleon command to install  
wildfly:current ← WildFly maven repo  
--layers=jaxrs,cdi ← Layers to be generated  
--dir=my-wildfly-server ← Output directory
```

Galleon layers - XML descriptors for WildFly Core build

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galleon.sh install ← galleon command to install  
wildfly:current ← WildFly maven repo  
--layers=jaxrs,cdi ← Layers to be generated  
--dir=my-wildfly-server ← Output directory
```

Galleon layers - XML descriptors for WildFly Core build

- [wildfly/wildfly-core / core-galleon-pack/src/main/resources/layers/standalone](#)

WILDFLY MODULES

```
java  
  -jar $JBOSS_HOME/jboss-modules.jar  
  -mp $JBOSS_HOME/modules  
  org.jboss.as.standalone
```


WILDFLY MODULES

```
java  ← java command           ↙ jar of the module system
  -jar $JBOSS_HOME/jboss-modules.jar
  -mp  $JBOSS_HOME/modules
  org.jboss.as.standalone
```

WILDFLY MODULES

```
java    ← java command
  -jar  $JBOSS_HOME/jboss-modules.jar      ↙ jar of the module system
  -mp   $JBOSS_HOME/modules                ← where the modules reside
  org.jboss.as.standalone
```

WILDFLY MODULES

```
java    ← java command
  -jar  $JBOSS_HOME/jboss-modules.jar      ↙ jar of the module system
  -mp   $JBOSS_HOME/modules                ← where the modules reside
  org.jboss.as.standalone                  ← start-up module
```

DEBUGGING

- s2i environmental variable **DEBUG**
- port forwarding



**ENJOY THE REST
OF THE
CONFERENCE**