

# GETTING STARTED WITH FUSE FABRIC

By Matthew J. Robson

Middleware Technical Account Manager

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The logo for Red Hat Summit, featuring the text "RED HAT" in a smaller font above "SUMMIT" in a larger font, both in white, set against a red background with a white diagonal line.

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Matthew J. Robson

@mattjrobson

Matthew.Robson@redhat.com



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# WHAT IS FABRIC8?

<http://fabric8.io/>



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- Open source integration platform, sponsored by Red Hat
- Underlay for Red Hat JBoss Integration Platform as a Service for OpenShift
- Dynamic and lightweight, runs across a variety of platforms and containers
- Allows you to dynamically scale out services without added configuration or management overhead
- Provides a “do once for many” model that saves time and reduces mistakes

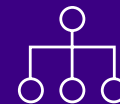
# WHAT DOES FABRIC8 GIVE ME?



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- Ability to scale containers and services on-demand
- Repeatable and configurable deployments
- Rolling upgrades and trackable versioning
- Automatic service discovery through ZooKeeper
- Integrated management console
- High Availability
- Load Balancing
- Container log and metric aggregation



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# The Basics (part1)



```
JBossFuse:admin@root> fabric:create --wait-for-provisioning --verbose --clean \  
--new-user admin --new-user-role admin --new-user-password admin \  
--zookeeper-password passwd --resolver manualip --manual-ip fusefabric1.lab.com
```

```
JBossFuse:admin@root> container-list  
[id] [version] [connected] [profiles] [provision status]  
root* 1.0 true fabric, fabric-ensemble-0000-1 success
```

```
JBossFuse:admin@root> fabric:join --zookeeper-password passwd --resolver \  
manualip --manual-ip fusefabric2.lab.com fusefabric1.lab.com:2181 root2
```

```
JBossFuse:admin@root> container-list  
[id] [version] [connected] [profiles] [provision status]  
root* 1.0 true fabric, fabric-ensemble-0001-1 success  
root2 1.0 true fabric, fabric-ensemble-0001-2 success  
root3 1.0 true fabric, fabric-ensemble-0001-3 success
```



# The Progression (part2)



```
JBossFuse:admin@root> fabric:container-create-ssh --host fusefabric3.lab.com  
--user root --password password --new-user admin --new-user-password admin  
--resolver manualip --manual-ip fusefabric3.lab.com amq-broker1
```

```
<name>fabric8 AMQ :: Fuse Fabric8 AMQ Broker Profile Parent</name>  
<plugins>  
  <plugin>  
    <groupId>io.fabric8</groupId>  
    <artifactId>fabric8-maven-plugin</artifactId>  
    <version>${fabric8-maven-plugin-version}</version>  
  </plugin>  
</plugins>
```

```
<name>fabric8 AMQ :: Broker Base Profile</name>  
<properties>  
  <fabric8.profile>mq-redhat</fabric8.profile>  
  <fabric8.parentProfiles>karaf</fabric8.parentProfiles>  
  <fabric8.profileVersion>1.5</fabric8.profileVersion>  
  <fabric8.features>mq-fabric mq-fabric-http-discovery</fabric8.features>  
</properties>
```

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```
JBossFuse:admin@root> profile-display mq-redhat
Profile id: mq-redhat
Version   : 1.5
Attributes: parents: karaf

Container settings
-----
Features :
  mq-fabric
  mq-fabric-http-discovery
Configuration details
-----
PID: org.fusesource.mq.fabric.template
broker.username admin
broker.password password
broker.nob.transport.uri tcp://hosta:61617
broker.client.transport.uri tcp://hosta:61616
broker.client.transport.name redhat-broker-client
kind StandAlone
broker.nob.transport.name redhat-broker-nob
config profile:redhat-broker.xml
broker.name ${broker-name}
broker.network.name.1 redhat-broker
broker.network.uri.1 static:(tcp://hostb:61617)
Other resources
-----
Resource: redhat-broker.xml
```

```
mvn fabric8:deploy -Dfabric8.jolokiaUrl=http://fusefabric1.lab.com:8181/jolokia
```

```
JBossFuse:admin@root> container-add-profile amq-broker1 mq-broker-redhat-broker1
```

```
2015-06-13 18:37:05 | INFO | Broker redhat-broker2 has started.  
2015-06-13 18:37:05 | INFO | Network connection between vm://redhat-broker2 and  
tcp://fusefabric3.lab.com:61617 (redhat-broker1) has been established.
```

```
2015-06-13 18:37:22 | INFO | Establishing network connection from  
vm://redhat-broker1?async=false&network=true to tcp://fusefabric4.lab.com:61617  
2015-06-13 18:37:22 | INFO | Network connection between vm://redhat-broker1 and  
tcp://fusefabric4.lab.com:61617 (redhat-broker2) has been established.
```

```
JBossFuse:admin@root> container-list
```

[id]	[version]	[connected]	[profiles]	[provision status]
amq-broker1	1.5	true	default, mq-broker-redhat-broker1	success
amq-broker2	1.5	true	default, mq-broker-redhat-broker2	success
fuse-services	1.5	true	default, mq-client-brokerNetwork	success

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# The Finishing Touch (part3)



```
<camelContext trace="false">
  <route id="produce-random-message">
    <from uri="timer://produceTimer?fixedRate=true&period=1000"/>
    <bean ref="myProducer" method="produce"/>
    <log message="${body}"/>
    <to uri="amq:queue:redhat.queue"/>
  </route>
</camelContext>
```

```
JBossFuse:admin@root> container-add-profile fuse-services fabric8-amq-producer
```

```
2015-06-14 16:05:13 | INFO | produce-random-message | The time is: Sun Jun 14 16:05:13 2015
```

```
2015-06-14 16:05:13 | INFO | consume-messages | The time is: Sun Jun 14 16:05:13 2015
```

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# WHY YES, THERE IS A FULL DEMO

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# PART 1

[HTTPS://GITHUB.COM/MROBSON/FUSE-FABRIC8-GETTING-STARTED](https://github.com/mrobson/fuse-fabric8-getting-started)

# PART 2

[HTTPS://GITHUB.COM/MROBSON/FUSE-FABRIC8-SSH-CONTAINERS](https://github.com/mrobson/fuse-fabric8-ssh-containers)

# PART 3

[HTTPS://GITHUB.COM/MROBSON/FUSE-FABRIC8-AMQ](https://github.com/mrobson/fuse-fabric8-amq)

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# Recommended Sessions



Racing Camel with BPM and Red Hat JBoss Fuse - Hand-On  
Ballroom B-2 - Wednesday, June 24 10:30-12:30pm

Fabric deployment with Red Hat JBoss Fuse - Hands-On  
Ballroom B-4 - Wednesday, June 24 1:20-2:20pm

Integrating microservices with Apache Camel & Fabric8  
Room 206 - Wednesday, June 24 2:30-3:30pm

Solving integration problems with JBoss Fuse  
Room 207 - Wednesday, June 24 2:30-3:30pm

Immutable infrastructure, containers, & the future of microservices  
Room 307 - Thursday, June 25 1:20-2:20pm

Introducing Red Hat JBoss Fuse 6.2  
Room 207 - Thursday, June 25 4:50-5:50pm

OpenShift 3 & the next generation of PaaS  
Room 312 - Wednesday, June 24 2:30-3:30pm

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