OOZIE - JMS Integration setup document

Local Set-Up :
Install Hadoop : http://zhongyaonan.com/hadoop-tutorial/setting-up-hadoop-2-6-on-mac-osx-yosemite.html

Add this to core-site.xml
```
<property>
  <name>hadoop.proxyuser.revanthreddy.hosts</name>
  <value>*</value>
</property>
<property>
  <name>hadoop.proxyuser.revanthreddy.groups</name>
  <value>*</value>
</property>
```

Start Hadoop :

hdfs namenode
hdfs datanode
yarn resourcemanager
yarn nodemanager
mapred historyserver

If any problems :
hdfs dfsadmin -safemode leave
hadoop namenode -format

Install oozie :
https://rajnishbigdata.wordpress.com/mysql-with-hive/oozie-install/

cd /Users/revanthreddy/Data/oozie/oozie-4.2.0/

Download and add **activemq-core-5.4.3.jar** to /oozie-4.2.0/oozie-server/webapps/oozie/WEB-INF/lib folder.

./bin/oozied.sh run

oozie web-console :

http://localhost:11000/oozie/

Install ACTIVEMQ:

http://activemq.apache.org/activemq-412-release.html
Install apache-activemq-4.1.2

cd /Users/revanthreddy/Data/apache-activemq-4.1.2/bin/macosx

./activemq start
./activemq status

oozie JMS Integration Doc : https://oozie.apache.org/docs/4.0.0/
AG_Install.html#Notifications_Configuration ,
                                    https://oozie.apache.org/docs/4.0.0/
DG_JMSNotifications.html

Environment Set-up :

```
vi ~/.bash_profile

export HADOOP_HOME='/Users/revanthreddy/opt/hadoop-2.6.0'
export PATH=$PATH:$HADOOP_HOME/bin

export OOZIE_HOME='/Users/revanthreddy/Data/oozie/oozie-4.2.0'
export PATH=$PATH:$OOZIE_HOME/bin
```

export OOZIECLIENT_HOME=/Users/revanthreddy/Data/oozie/oozie-4.2.0/oozie-
client
export PATH=$PATH:$OOZIECLIENT_HOME/bin
export OOZIE_URL=http://localhost:11000/oozie

export ACTIVEMQ_HOME=/Users/revanthreddy/Data/apache-activemq-4.1.2/
export PATH=$PATH:$ACTIVEMQ_HOME/bin/macosx

```
source ~/.bash_profile
```

Running oozie example:

hadoop fs -mkdir /user

hdfs dfs -mkdir /user/revanthreddy

hadoop fs -put /Users/revanthreddy/Data/oozie/oozie-4.2.0/examples **/user/ revanthreddy/**

oozie job -oozie http://localhost:11000/oozie -config /Users/revanthreddy/ Data/oozie/oozie-4.2.0/examples/apps/map-reduce/job.properties -run

open oozie web console you should be able to see the job submitted .
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Set-up on testbed /stage servers :

Install Activemq by following the above Activemq installation steps .

Stop oozie server .

Download and copy **activemq-core-5.4.3.jar** to /oozie-4.2.0/oozie-server/ webapps/oozie/WEB-INF/lib folder.

Add below properties to the ooze-site.xml file .
```
<property>
    <name>oozie.services.ext</name>
    <value>
       org.apache.oozie.service.JMSAccessorService,
       org.apache.oozie.service.JMSTopicService,
       org.apache.oozie.service.EventHandlerService,
       org.apache.oozie.sla.service.SLAService
    </value>
  </property>

  <property>
    <name>oozie.service.EventHandlerService.event.listeners</name>
    <value>
       org.apache.oozie.jms.JMSJobEventListener,
       org.apache.oozie.sla.listener.SLAJobEventListener,
       org.apache.oozie.jms.JMSSLAEventListener,
       org.apache.oozie.sla.listener.SLAEmailEventListener
    </value>
  </property>
  <property>
```

```
      <name>oozie.jms.producer.connection.properties</name>

<value>java.naming.factory.initial#org.apache.activemq.jndi.ActiveMQInitialContex
tFactory;java.naming.provider.url#tcp://localhost:
61616;connectionFactoryNames#ConnectionFactory</value>
    </property>
    <property>
      <name>oozie.service.JMSTopicService.topic.name</name>
      <value>
        default=${username}
      </value>
      <description>
        Topic options are ${username} or a fixed string which can be specified as
default or for a
        particular job type.
        For e.g To have a fixed string topic for workflows, coordinators and
bundles,
        specify in the following comma-separated format: {jobtype1}
={some_string1}, {jobtype2}={some_string2}
        where job type can be WORKFLOW, COORDINATOR or BUNDLE.
        Following example defines topic for workflow job, workflow action,
coordinator job, coordinator action,
        bundle job and bundle action
        WORKFLOW=workflow,
        COORDINATOR=coordinator,
        BUNDLE=bundle
        For jobs with no defined topic, default topic will be ${username}
      </description>
    </property>
  <property>
      <name>oozie.service.JMSTopicService.topic.prefix</name>
      <value></value>
      <description>
        This can be used to append a prefix to the topic in
oozie.service.JMSTopicService.topic.name. For eg: oozie.
      </description>
    </property>
```

start the oozie server .

Pushing the oozie events to Datadog :

mkdir metrics

cd metrics

mkdir lib
mkdir conf
mkdir logs

move `rasa-metrics-1.0.jar to lib folder` .
move metricsConfig.properties file to conf folder and change the below two
properties accordingly .

oozie.url = http://localhost:11000/oozie
oozie.username = revanthreddy

 Run the below command :

```
nohup java -cp conf:lib/rasa-metrics-1.0.jar -
Ddatadog.metrics.apikey=947d12f46dead405bf019033434f0cba
com.rasa.oozie.events.OozieJMSListener&
```