

RabbitMQ

- Robust messaging for applications
- uses the AMQP standard and is written by Erlang.
- Easy to use
- Runs on all major operating systems
- Supports a huge number of developer platforms
- Open source and commercially supported.
- Features :
 - Management UI and API
 - Plugin Architecture
 - Clustering, Active/Active HA Queues

- Written in Erlang / OTP.
- AMQP is the base protocol (supports 0.8 and 0.9.1).
- Language support:
 - ☐ Java
 - ☐ node.js
 - ☐ Erlang
 - ☐ PHP
 - ☐ Ruby
 - ☐ .Net

JMS vs RabbitMQ

- JMS :
 - an API that is part of Java EE
 - JMS providers such as OpenMQ (glassfish's default), HornetQ(Jboss), and ActiveMQ.
- RabbitMQ: is an open source message broker
 - AMQP standard
 - Erlang.

- Messaging Model:
 - JMS supports two models: one to one and publish/subscriber.
 - RabbitMQ supports the AMQP model which has 4 models : direct, fanout, topic, headers.
- Data types:
 - JMS supports 5 different data types but RabbitMQ supports only the binary data type.

- Workflow strategy:
 - In AMQP, producers send to the exchange then the queue, but in JMS, producers send to the queue or topic directly.
- Technology compatibility:
 - JMS is specific for java users only, but RabbitMQ supports many technologies.

Installing RabbitMQ

- Installed Erlang
- unpack the tarball or rpm

```
$ tar -xzvf rabbitmq-server-generic-unix-2.7.0.tar.gz
$ cd rabbitmq_server-2.7.0/
```

```
[root@tos Software]# rpm -ivh rabbitmq-server-3.7.7-1.el7.noarch.rpm
warning: rabbitmq-server-3.7.7-1.el7.noarch.rpm: Header V4 RSA/SHA1 Signature, key ID 6026dfca: NOKEY
Preparing... ##### [100%]
Updating / installing...
  1:rabbitmq-server-3.7.7-1.el7 ##### [100%]
[root@tos Software]#
```

- folder structure
 - the logs and Mnesia

```
$ sbin/rabbitmq-server
```

```
$ cd path/to/rabbitmqinaction/rabbitmq_server-2.7.0/
$ sbin/rabbitmqctl status
```

Data directory

Node data directory: /var/lib/rabbitmq/mnesia/rabbit@rabbitmq0

Raft data directory: /var/lib/rabbitmq/mnesia/rabbit@rabbitmq0/quorum/rabbit@rabbitmq0

Config files

Log file(s)

- * /var/log/rabbitmq/rabbit@rabbitmq0.log
- * <stdout>

Lab : Installing on RPM-based Linux