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AMQP and JMS

I learned about TIBCO RV back in 1996, and later Java Message Service (JMS) from the Java world in 2000. Now I come across AMQP.

Superficially, AMQP is an advanced messaging protocol that works across platforms (i.e. not just Java or .NET), particularly important in the cloud technologies. Many DevOps folks use python or Ruby instead of Java for scripting. JMS is an interoperable messaging between Java. Similarly, AMQP works across platforms and more language variants.

Mark Richards summarizes the difference between AMQP and JMS very well:

- **Messaging Model.** JMS supports publish-subscribe and point-to-point messaging models. AMQP supports 5 models, including Direct Exchange (~point-to-point, but can bind multiple queues) and Fanout Exchange (~publish-subscribe, but without a binding argument). Other models include Topic Exchange, Headers Exchange and System Exchange that are similar to publish-subscribe model.
- **Message Structure.** A JMS message has 3 sections: header, properties and message body. An AMQP has header, properties, message body and an optional footer. The key difference is that AMQP only supports binary data type while JMS supports 5 different types.

Some other differences:

- **Distribution Strategy.** In AMQP a producer sends to an exchange without knowing the actual message distribution strategy while in JMS the producer targets either a queue or a topic (thus being aware of the type of message routing in place)
- **Configuration.** RabbitMQ's queues and exchanges are all configured via the AMQP protocol so a client library allows you to configure all your destinations and their behavior. ActiveMQ requires specific destination configuration because the JMS spec doesn't cover any of the administration side of things
- **Configuration Format.** RabbitMQ's system configuration is Erlang-esque, while ActiveMQ is usually configured in XML.

There is an interesting (though a bit dated) article about what's wrong with AMQP, e.g.

- AMQP inherits some of the JMS challenges
- Scalability of sending binary contents over http - is this the right approach

<http://www.imatix.com/articles/whats-wrong-with-amqp>


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Reference

https://docs.google.com/viewer?a=v&q=cache:sdMm9HJU8dkJ:www.wmrichards.com/amqp.pdf+&hl=en&gl=us&pid=bl&srcid=ADGEESjtUYHlxyH13dQDlcWQL4Sw_YismsZdWj6TgtnUmjs4q2rS8xCUBh5uG-qXHVyM8xmCT4zO1brJ_dSqShUHddldy_yiGr7w6_IG_FgVMoTLON0LZokXLVK2Ry507Rdw5RB8aUVd&sig=AHIEtbQgR66fr7fKX0DoqrzjGZBOlctJBg [https://docs.google.com/viewer?a=v&q=cache:sdMm9HJU8dkJ:www.wmrichards.com/amqp.pdf+&hl=en&gl=us&pid=bl&srcid=ADGEESjtUYHlxyH13dQDlcWQL4Sw_YismsZdWj6TgtnUmjs4q2rS8xCUBh5uG-qXHVyM8xmCT4zO1brJ_dSqShUHddldy_yiGr7w6_IG_FgVMoTLON0LZokXLVK2Ry507Rdw5RB8aUVd&sig=AHIEtbQgR66fr7fKX0DoqrzjGZBOlctJBg]

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