Welcome to MRF!

> **NOTE:** for the moment this document is a draft file.

MRF(short for Message Retry Framework, based upon Spring AMQP) is a framework which addes flexible and reliable retry function to RabbitMQ.

Normally, if an exception occurs during processing message, the message will simply be re-thrown to message queue immediately, then receive this message again and probably(for example there is a bug in onMessage(Message message) code or the message is malformed) trigger exception again, then re-thrown to message queue, and so on back and forth. It’s sometimes meaningless for that the message queue will be blocked by the problematic message. Other times, we may not want the problematic message be retried immediately and infinitely. It would be better if we can set a max retry times for the message, and if it has reached max retry times, it should be sent for manual recover.

This framework just provides all these and more. It enhances retry and recover functionality for RabbitMQ. It has following 6 retry modes:

retryInterval	retryTimes	retry mode
-1	-1	direct to recover
0	0	no retry
0	< 0	retry immediately and infinitely
0	> 0	retry immediately and finitely
> 0	< 0	retry intervally and infinitely
> 0	> 0	retry intervally and finitely

Here are some features of MRF:

> **Zero code invasion:** all we need is just configuring a RetryServiceConfig bean which specifies the business message queue which adopts MRF’s retry functionality, retryInterval and max retryTimes parameter
> **Flexiable configurations:** we can not only set retryInterval and

> retryTimes parameter, but also can specify the exception types we care, and a recover callback if necessary.
> **Efficiency:** after read the core implementation code of Quartz, I adopts and extends the task polling mechanism of Quartz, which has proved be efficient enough for enterprise usage, and also the related poll task parameters are fully customizable(such as idle wait time, poll thread priority, worker thread pool size, etc)
> **...**

Hope for your feedback and my email is jxqlovejava@163.com.