Large Message Proxy

Team Unknown Pleasures

How our LMP works

1. Sending
    a. Message to be sent is serialized using Kryo
    b. Byte message is sliced into chunks
    c. To each chunk, meta information is prepended [12 bytes total]
        i. an id of the overall message
        ii. a sequential chunk id
        iii. the total number of chunks
    d. Each chunk is sent individually to the receiving proxy using the standard receiverProxy.tell() method
2. Receiving
    a. Receiver maintains a buffer of all incoming large messages, identified by their id
    b. Message id, chunk id and total number of chunks is read from message
    c. Message data is added to the message buffer corresponding to the extracted message id
    d. If message not complete
        i. Request next chunk → Pull work
    e. If message complete
        i. Reassemble chunks of message
        ii. De-serialize message using Kryo and send to the original receiver
        iii. Send CompletionMessage to sender to remove message from buffer of sender