

Group03 Performance and Fault tolerance

QOS

We have decided on a quality of service level 1 over the whole application, since it will ensure the delivery of the messages, while maintaining a good performance. Level 2 would have resulted in a higher data-throughput, thus increasing the latency. Furthermore, the sent messages are not security relevant, and therefore level 2 is not necessary in our eyes. Based on the decided QOS, it would be easier to scale up the system, since our implementation is developed in a mindful way, regarding the use of resources.

Fault tolerance mechanism and impact on the architecture

We implemented fault tolerance between the Generator and the pipeManager. In case the pipeManager disconnects from the Generator the pipeManager will try to re-subscribe to it until it succeeds. This will improve the availability of the system. In case of connection-failure, the system will try to reconnect automatically as fast as possible. Our fault tolerance mechanism has no impact on the consistency of our system.