

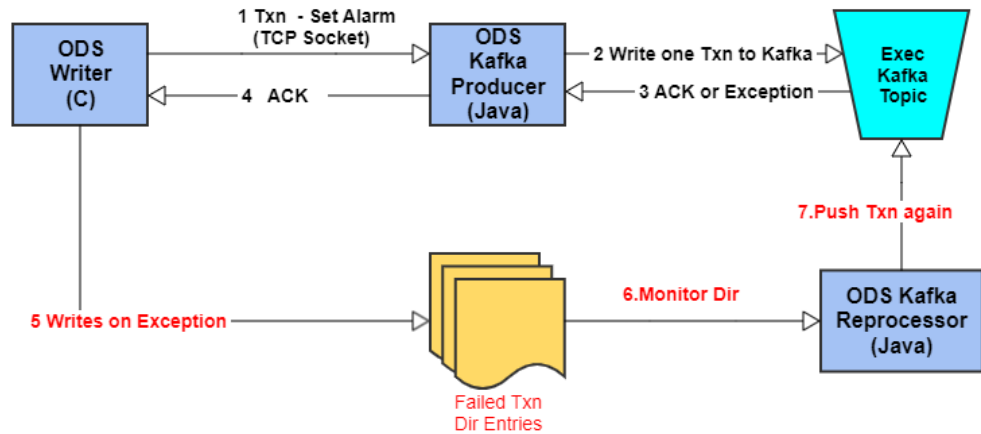
# Kafka Producer Resiliency Improvements: In-memory queue

Titanium Technical Leadership Council

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## Example of current RS Core



## Current Challenges:

- Scalability and throughput: Writer holds on to memory slots until producer and Kafka round trip is completed. Delaying the overall processing time per transaction in RS Core.
- Timeouts: Frequent timeouts because of fail fast model
- Duplicates: Several duplicates are routinely created since reprocessor doesn't check for duplicates

## Proposal:

- Make each tier more resilient. So as soon as Kafka producer receives the message, it should maintain into in memory queue and send ACK back.
- The background jobs in Kafka producer component should take care of sending data to Kafka
- Longer timeouts are possible since real time traffic is not held hostage for ack from Kafka

