Messaging Inside AWS

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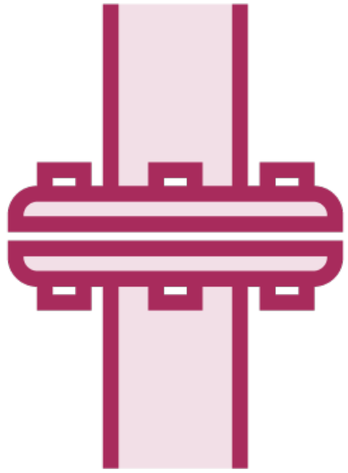
Simple Queue Service



Kinesis Streams

Overview

A day in the life of SQS

Racing messages to a queue

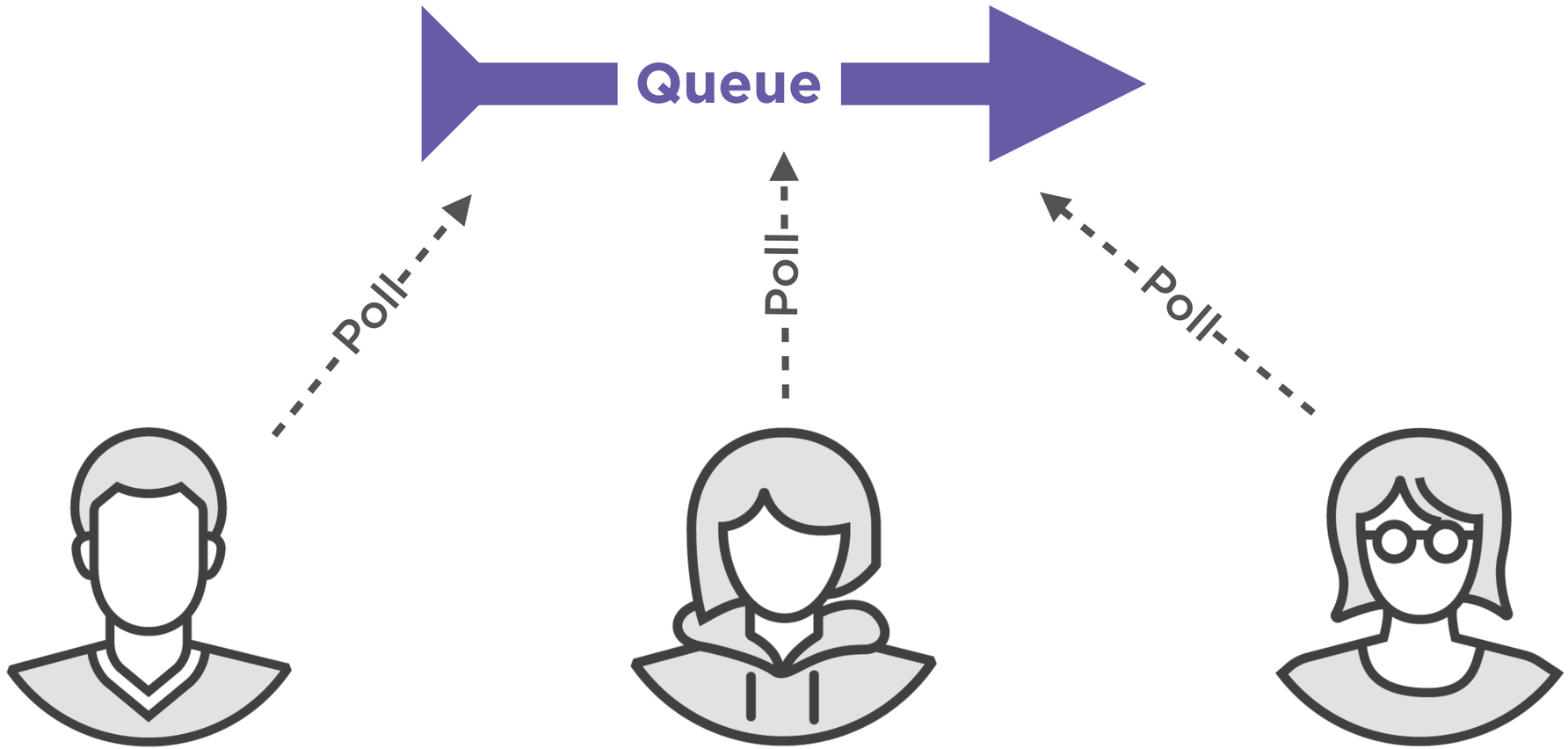
Sending results down the stream

Limiting a queue's potential

Understanding SQS Polling and the Message Lifecycle

Sending Messages to SQS

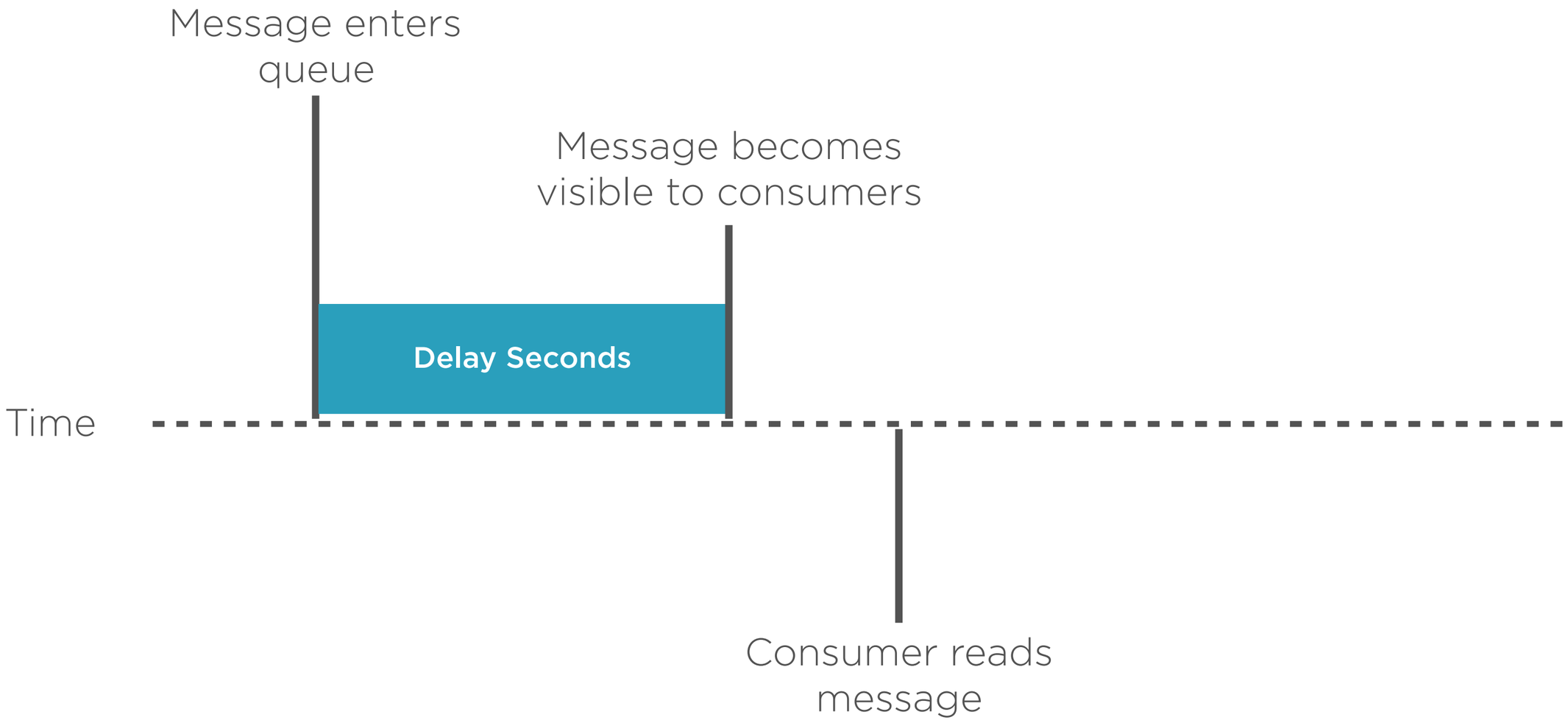
Polling for Messages from SQS



Delay Seconds

Amount of time to delay the visibility of an incoming message.

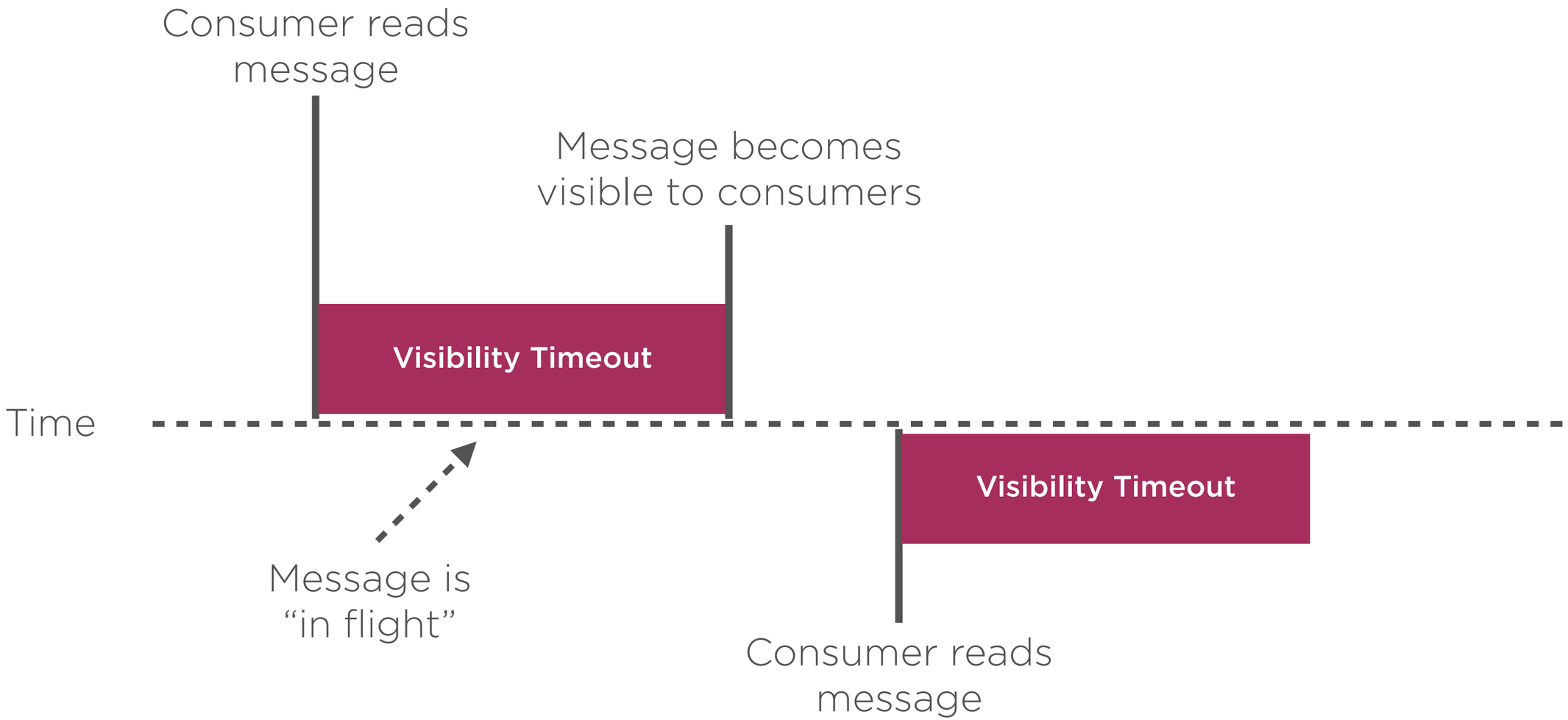
SQS Delay Seconds Example



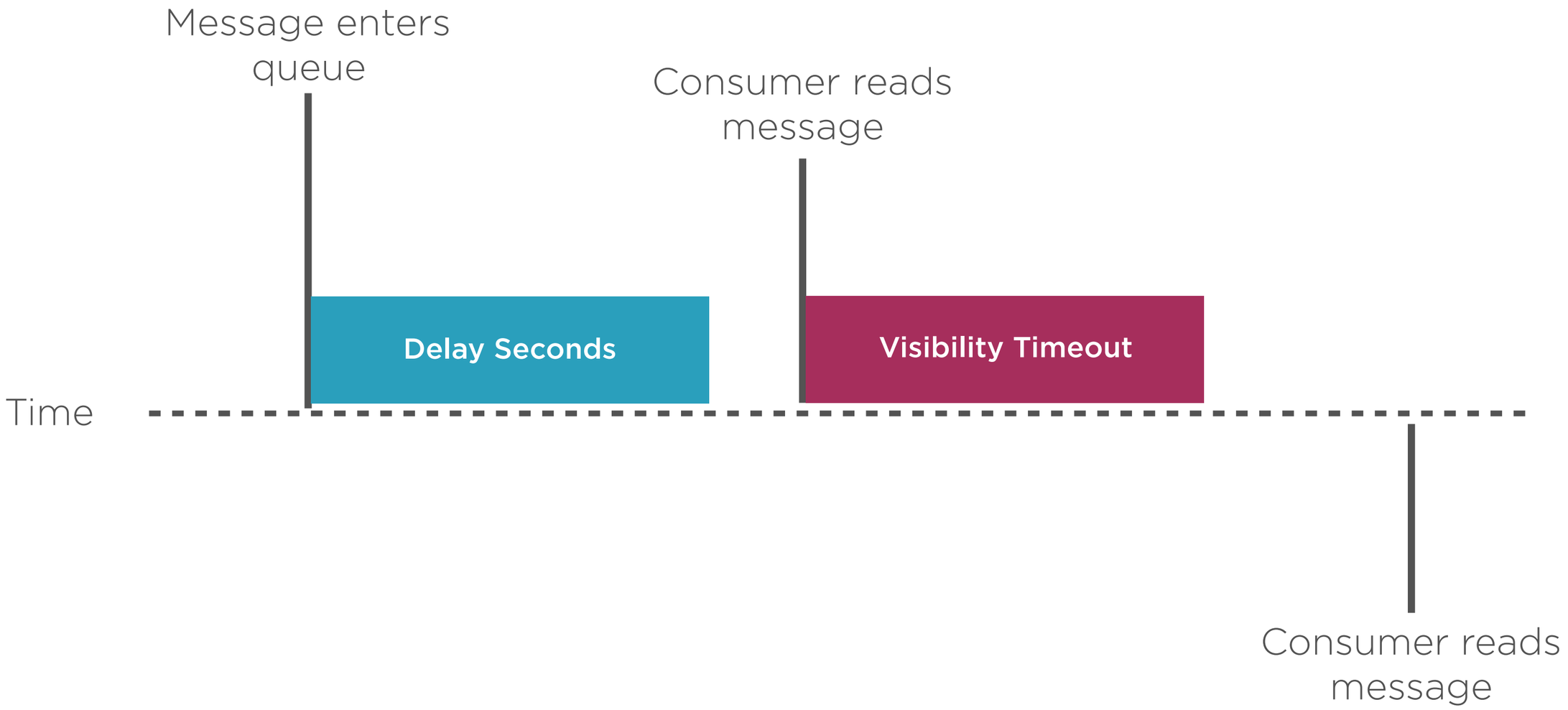
Visibility Timeout

Amount of time to make the message invisible after it has been read by a consumer.

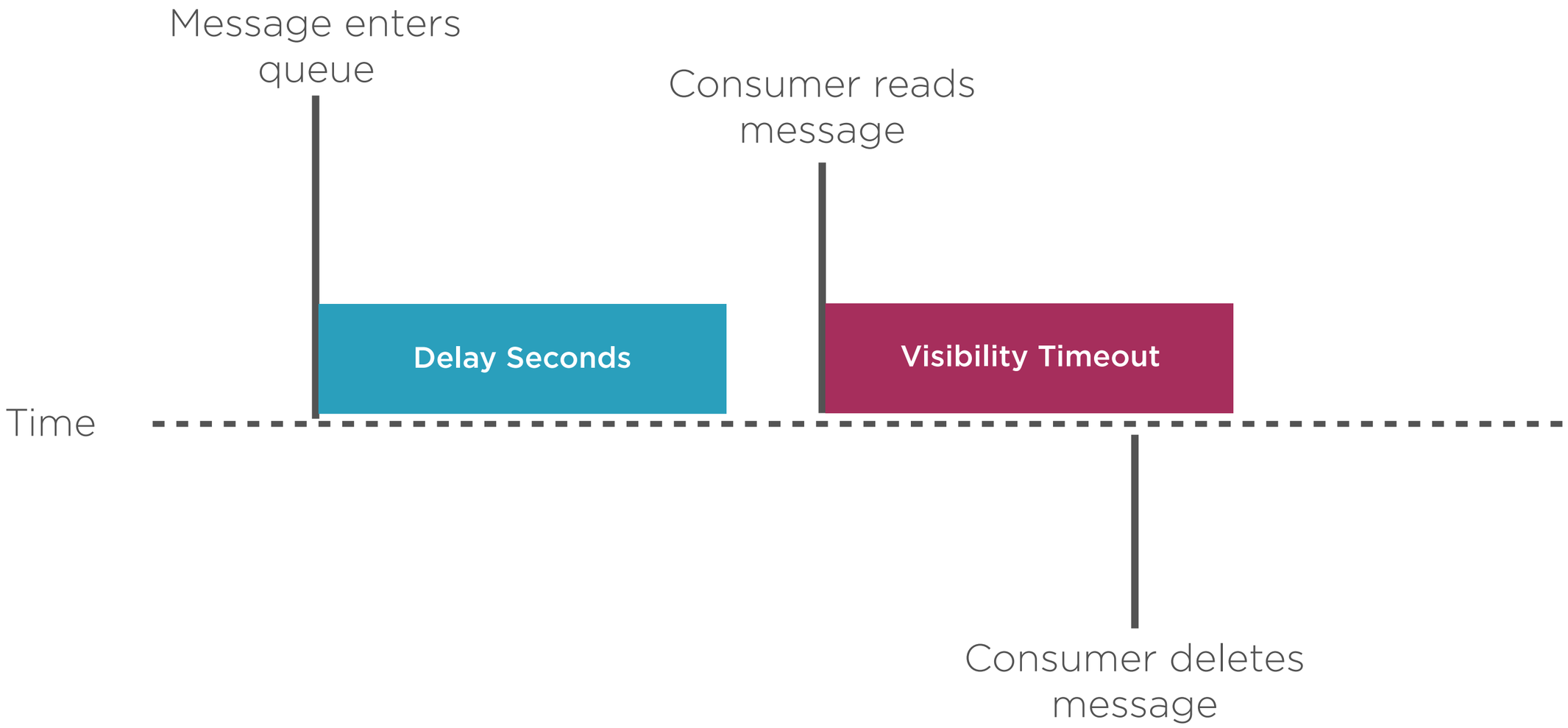
SQS Visibility Timeout Example



SQS Message Lifecycle

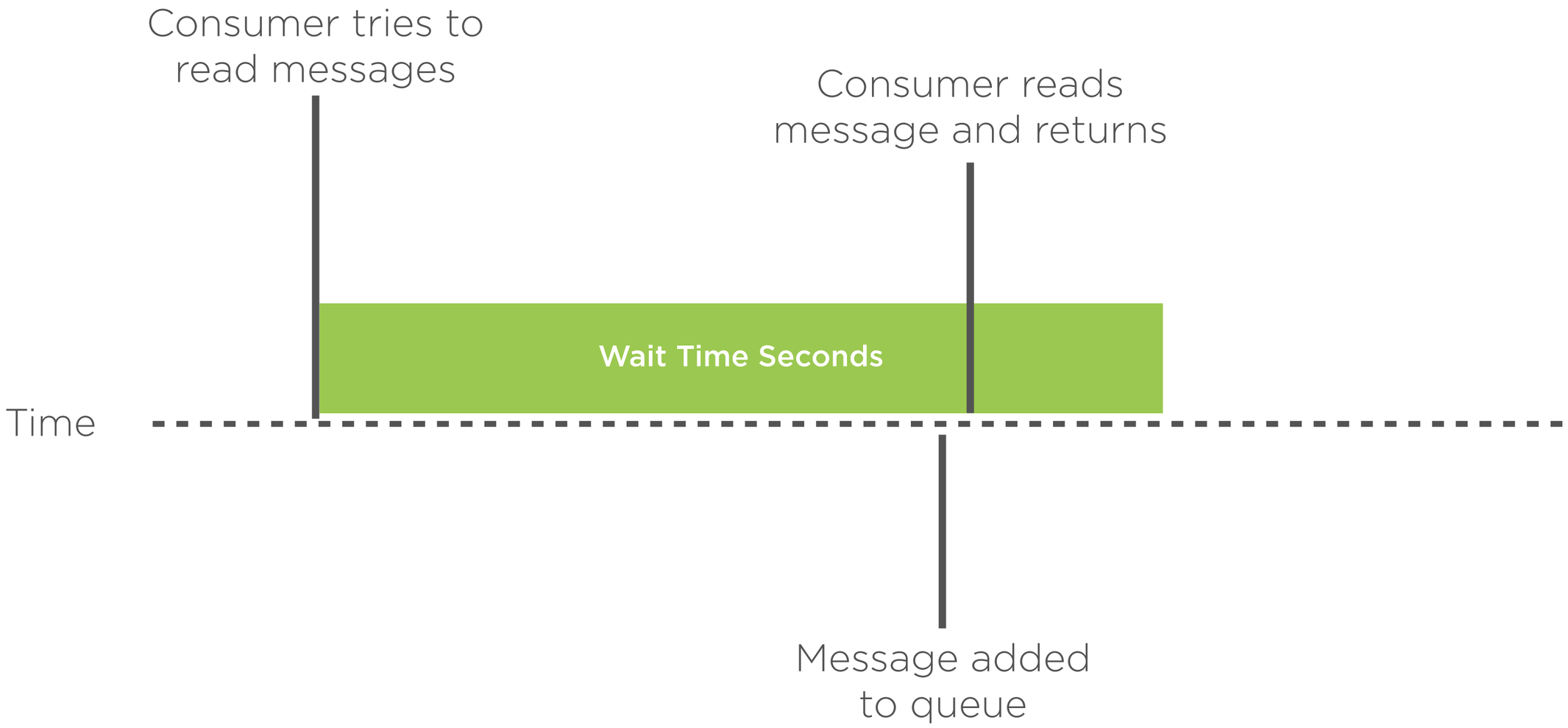


SQS Message Lifecycle with Delete



Default delay seconds and visibility timeout are set on the queue, but a consumer can override them

SQS Long Polling Example



Creating an SQS Queue

Sending Messages to SQS

Polling for Messages in SQS

Long Polling

Polling every 5 seconds...

...equals 500,000 requests each month

Understanding Kinesis Streams

Kinesis Streams

Real-time data streaming

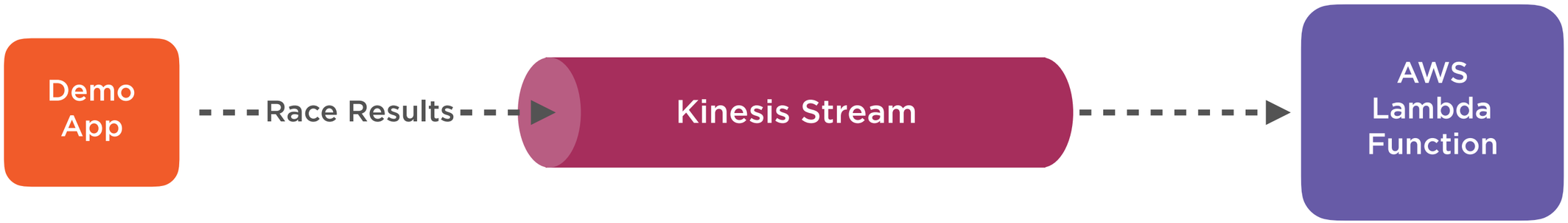
Scales quickly and easily

Multiple producers and consumers

Kinesis Stream Shards

Basic unit of Kinesis Stream capacity. One shard equals 1MB/second of input and 2MB/second of output.

Demo Project Usage of Kinesis Streams



Creating a Kinesis Stream

Sending Data to a Kinesis Stream

Implementing a Kinesis Stream Consumer

AWS Lambda functions can use Kinesis Streams as a trigger

Limits with SQS and Kinesis Streams

Kinesis Streams Limit

1MB hard limit on size of data blobs

CloudFront Limit

1000 PUT operations per shard

Conclusion

Summary

Don’t delay getting “in flight”

Racing to update the hamsters table

Kinesis Streams for the win

Finding a good use for Lambda

Kinetic limits

Up Next

Communicating with AWS