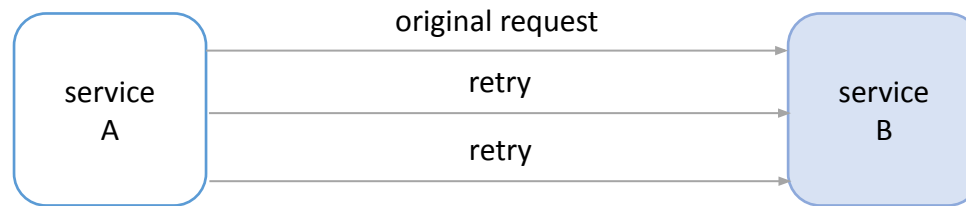


# How to retry



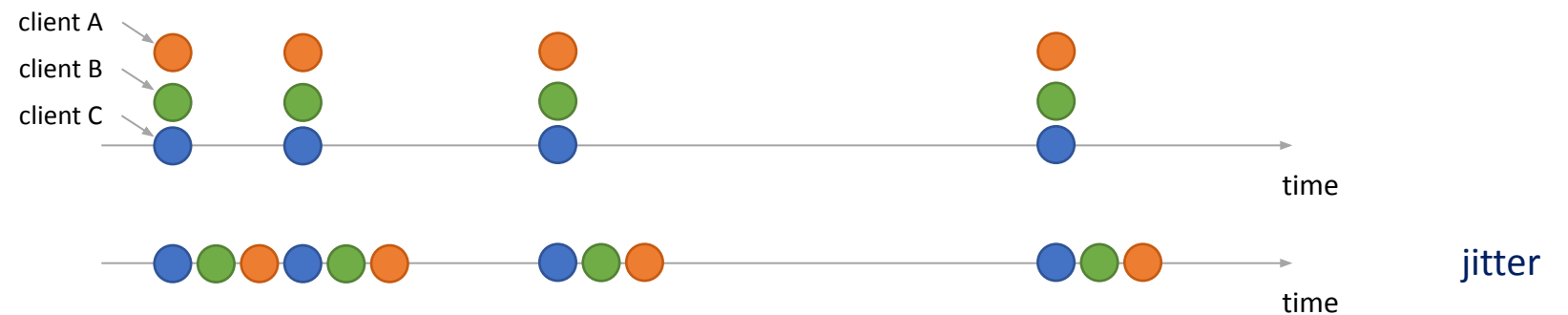
- introduce delays between retry attempts



- limit the number of retries

e.g. retry 3 times and then cancel or failover or fallback

- force clients to retry at different times



# How to retry

## libraries

Resilience4j  
Polly

retry if request failed with this exception

5 times

Random jitterer = new Random();

Policy

.Handle<SomeExceptionType>().WaitAndRetry(5, retryAttempt =>

    TimeSpan.FromSeconds(Math.Pow(2, retryAttempt)) ← with exponential backoff (2, 4, 8 etc.)  
        + TimeSpan.FromMilliseconds(jitterer.Next(0, 1000)) ← and jitter (up to 1 second)

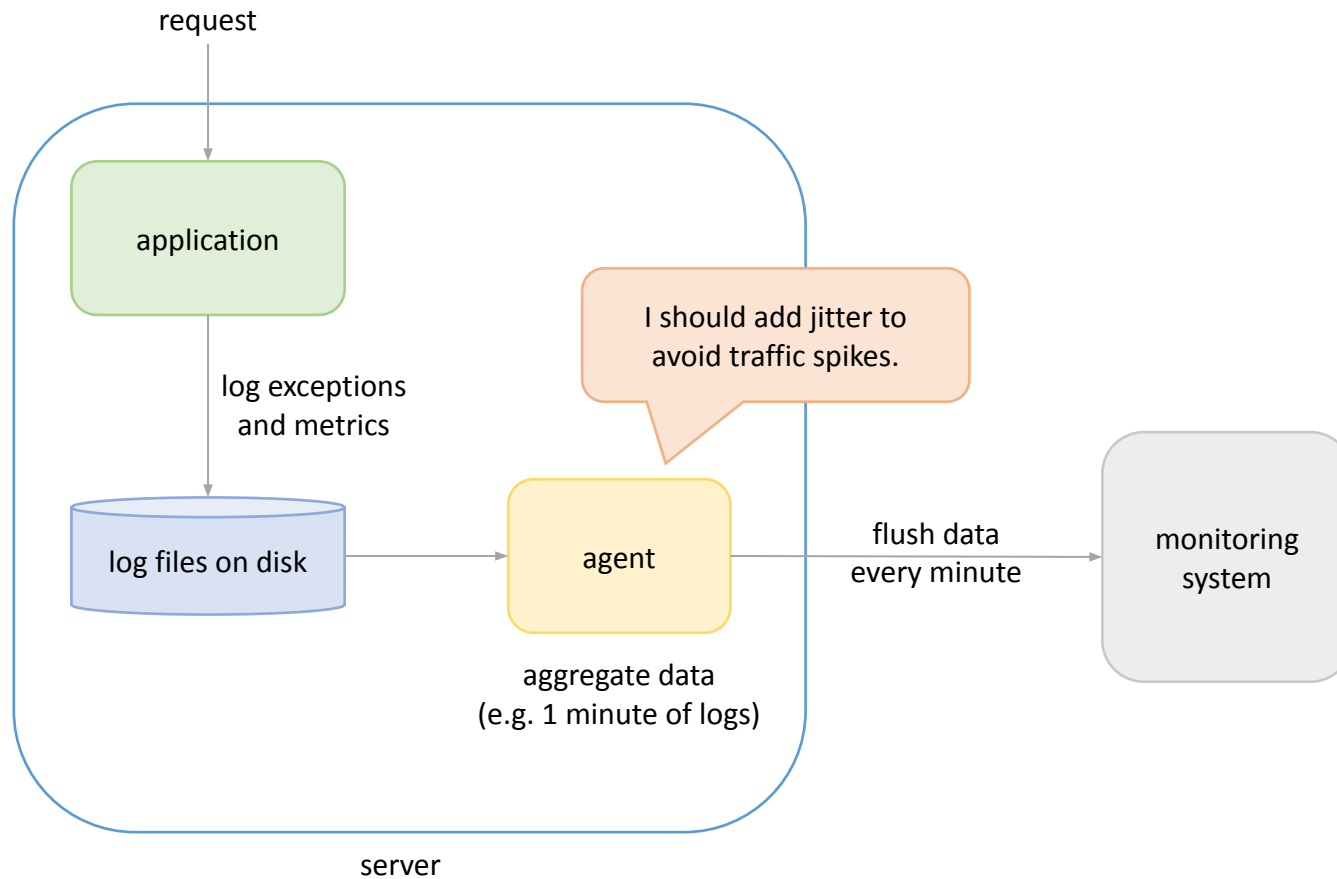
); *code sample: [www.thepollyproject.org](http://www.thepollyproject.org)*

# How to retry

not only retries need jitter

## data aggregation scenarios

e.g. application monitoring



## workloads that run periodically

