What else to know to build reliable, scalable, and fast systems

potential problems

gradual increase in the number of messages
unhealthy consumers cause broker failures

broker

transient network issues
long-lasting network issues

consumer application failures

performance degradation

broker pushes too aggressively

what will help us solve these problems

backoff with jitter failover fallback message delivery guarantees timeouts retries idempotency consumer offsets batching compression horizontal and vertical scaling autoscaling partitioning bulkhead load shedding rate limiting circuit breaker

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