#### What is RabbitMQ?

- A Message Broker it accepts and forwards messages
- Messages are sent by Producers (or Publishers)
- Messages are received by Consumers (or Subscribers)
- Messages are stored on Queues (essentially a message buffer)
- Exchanges can be used to add "routing" functionality
- Uses Advanced Message Queuing Protocol (AMQP) & others

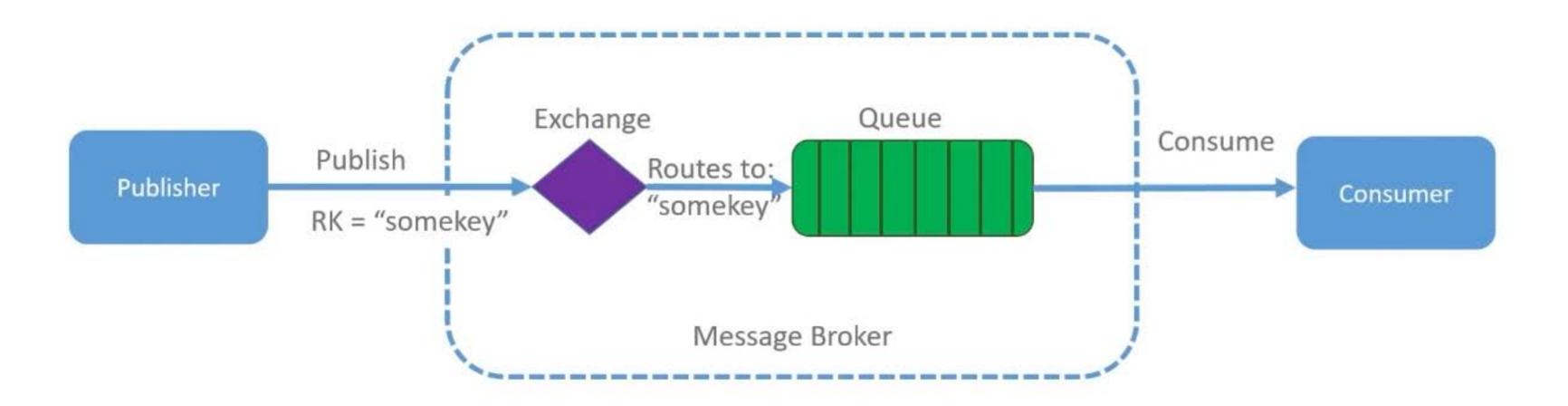
# Exchanges



## 4 Types of Exchange

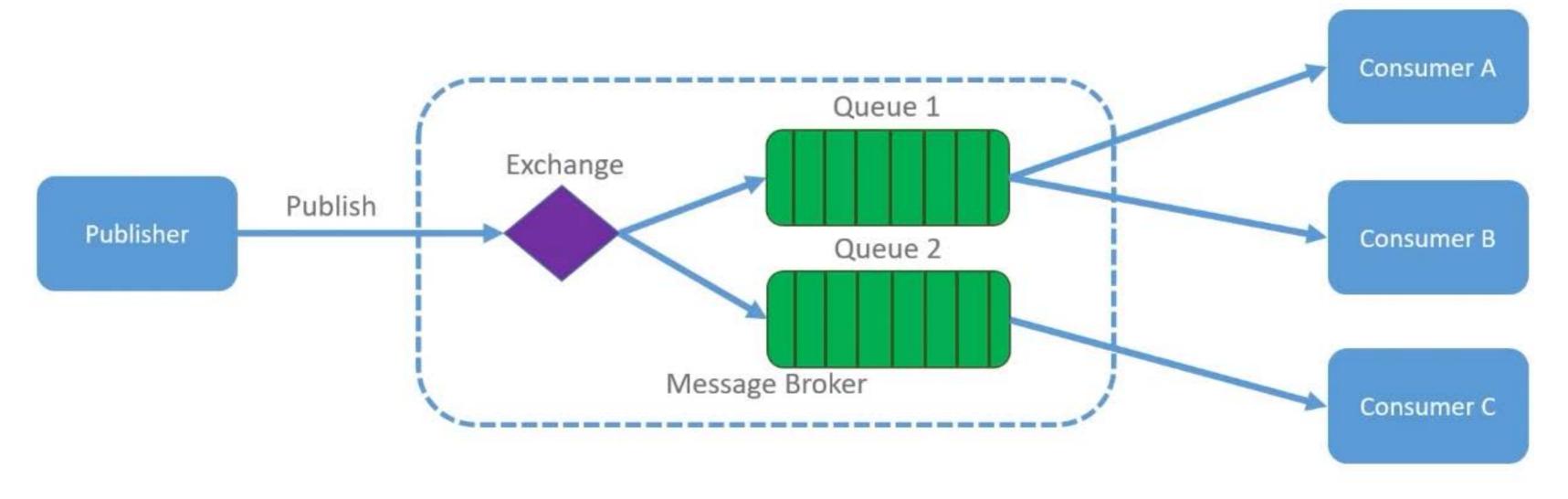
- Direct Exchange
- Fanout Exchange
- Topic Exchange
- Header Exchange

#### RabbitMQ Direct Exchange



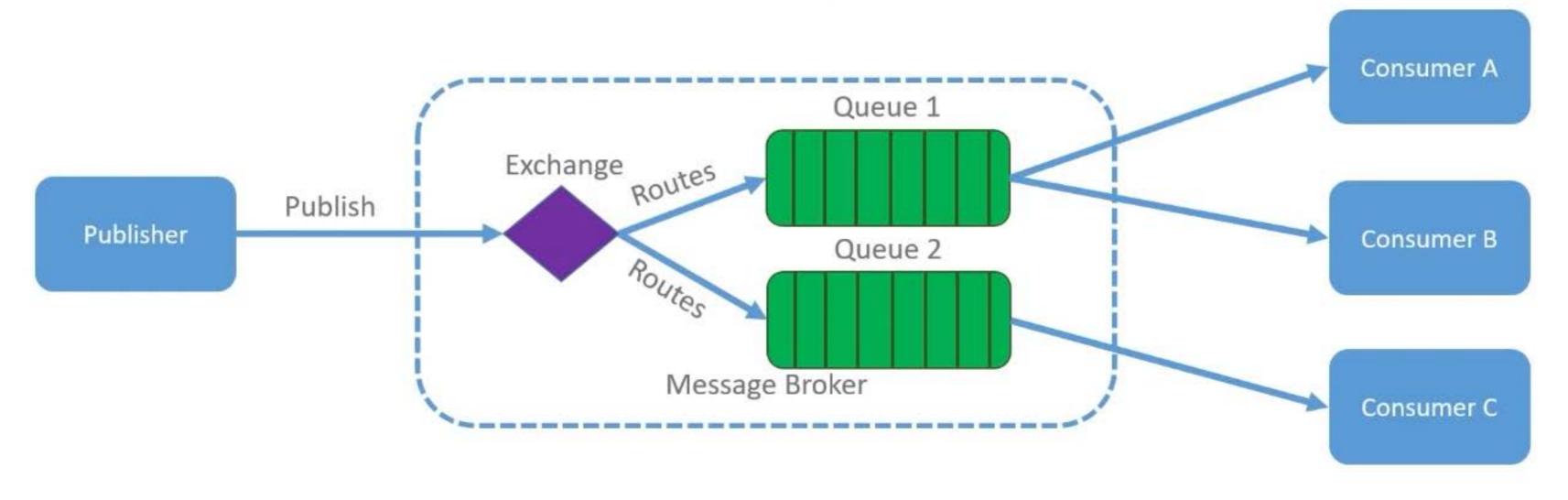
- Delivers Messages to queues based on a routing key
- Ideal for "direct" or unicast messaging

### RabbitMQ Fanout Exchange



- Delivers Messages to all Queues that are bound to the exchange
- It ignores the routing key
- Ideal for broadcast messages

#### RabbitMQ Topic Exchange



- Routes messages to 1 or more queues based on the routing key (and patterns)
- Used for Multicast messaging
- Implements various Publisher / Subscriber Patterns

#### Message Broker

 Ensures at least once message delivery (Kafka, RabbitMQ, Kinesis, SQS, ...)

