RabbitMQ for .Net Developers – Part 1

Message Exchange Patterns

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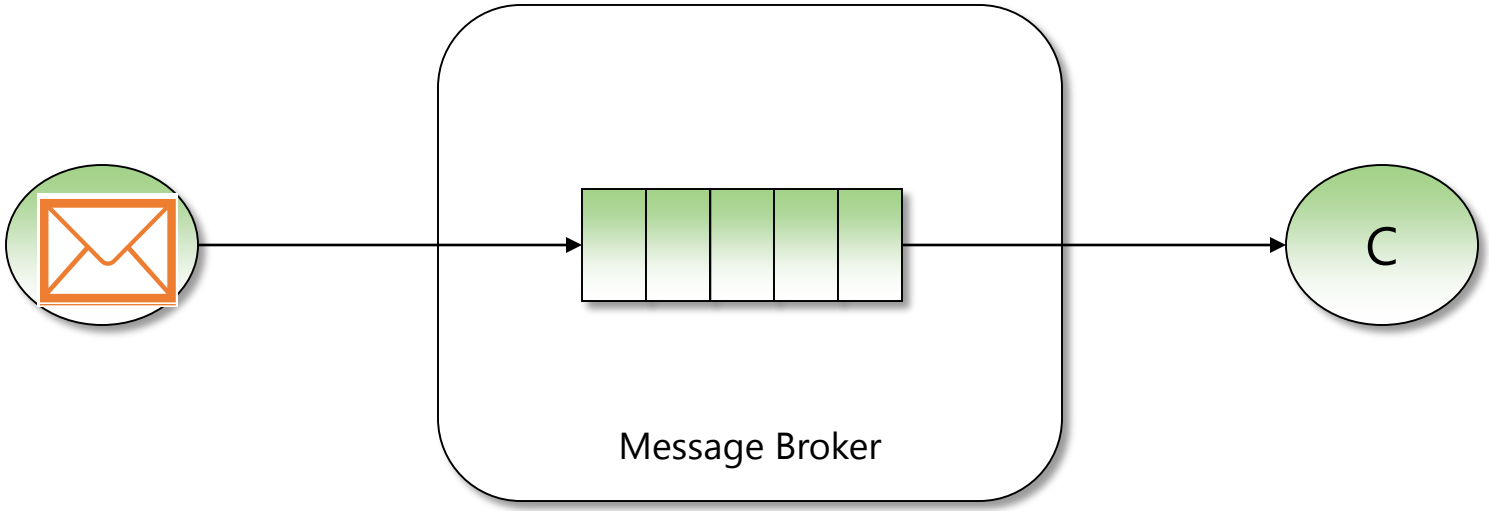
Agenda

- One way messaging
- Worker Queues
- Publish Subscribe
- RPC

Simple one way messaging

Pattern

- **Overview**
  - A message is sent by sender
  - Message is processed by receiver
- **Characteristics**
  - Exchange = “” (default exchange)
  - Routing Key = The queue to send to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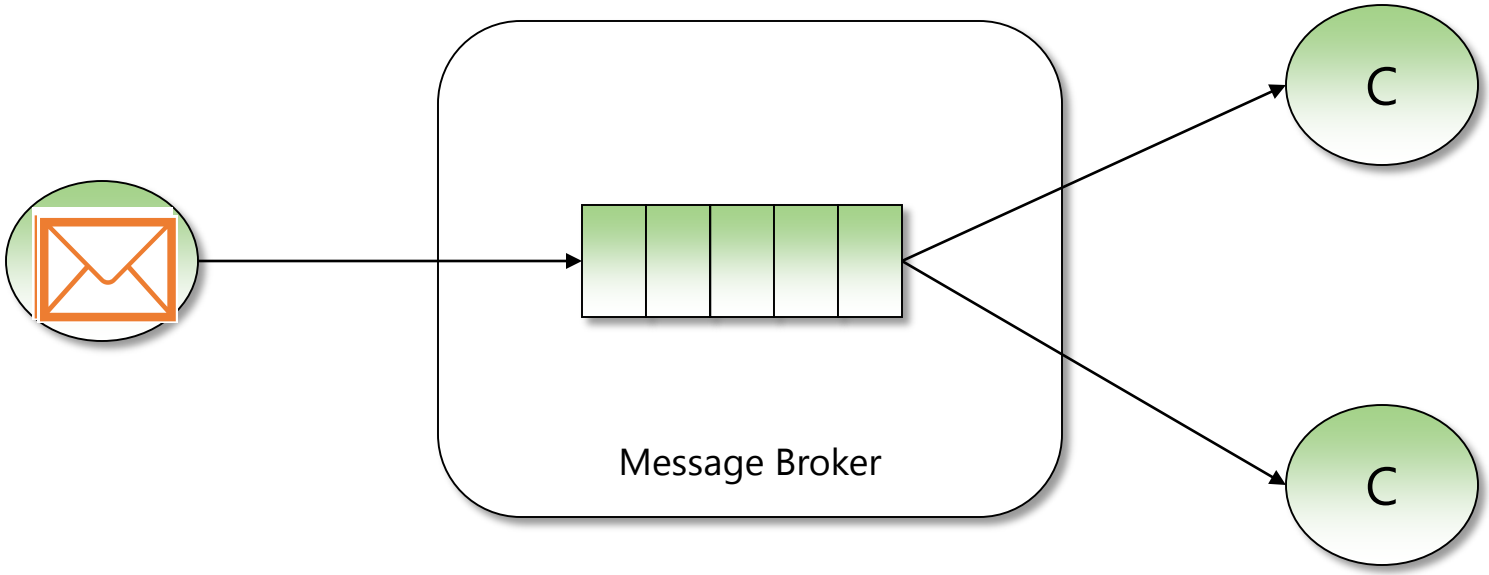
Message Broker

Demo – Simple One way messaging

Worker Queues

Pattern

- **Overview**
  - Message is sent by the sender
  - One listener from many will get the message
  - Listeners operate as competing consumers
- **Characteristics**
  - Exchange = “” (default exchange)
  - Routing Key = The queue to send to
  - Multiple competing consumers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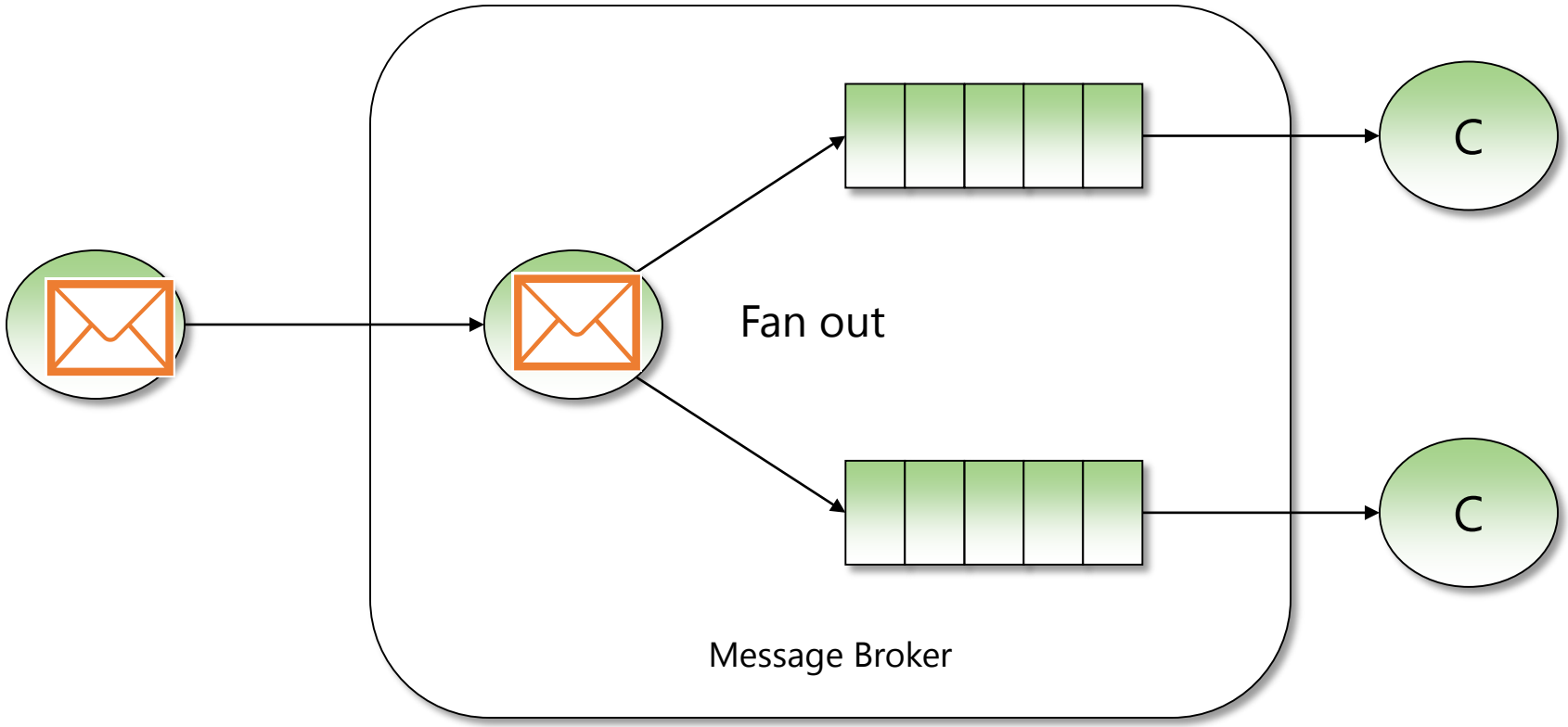
Message Broker
C

Demo – Worker Queues

Publish Subscribe

Pattern

- **Overview**
  - A message is sent to an exchange
  - The exchange copies the message to all bound queues
  - Each queue will have a listener to process the message
- **Characteristics**
  - Exchange = The message is sent to a named exchange
  - Exchange Type = Fanout
  - Message goes to all queues bound to the exchange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Fan out
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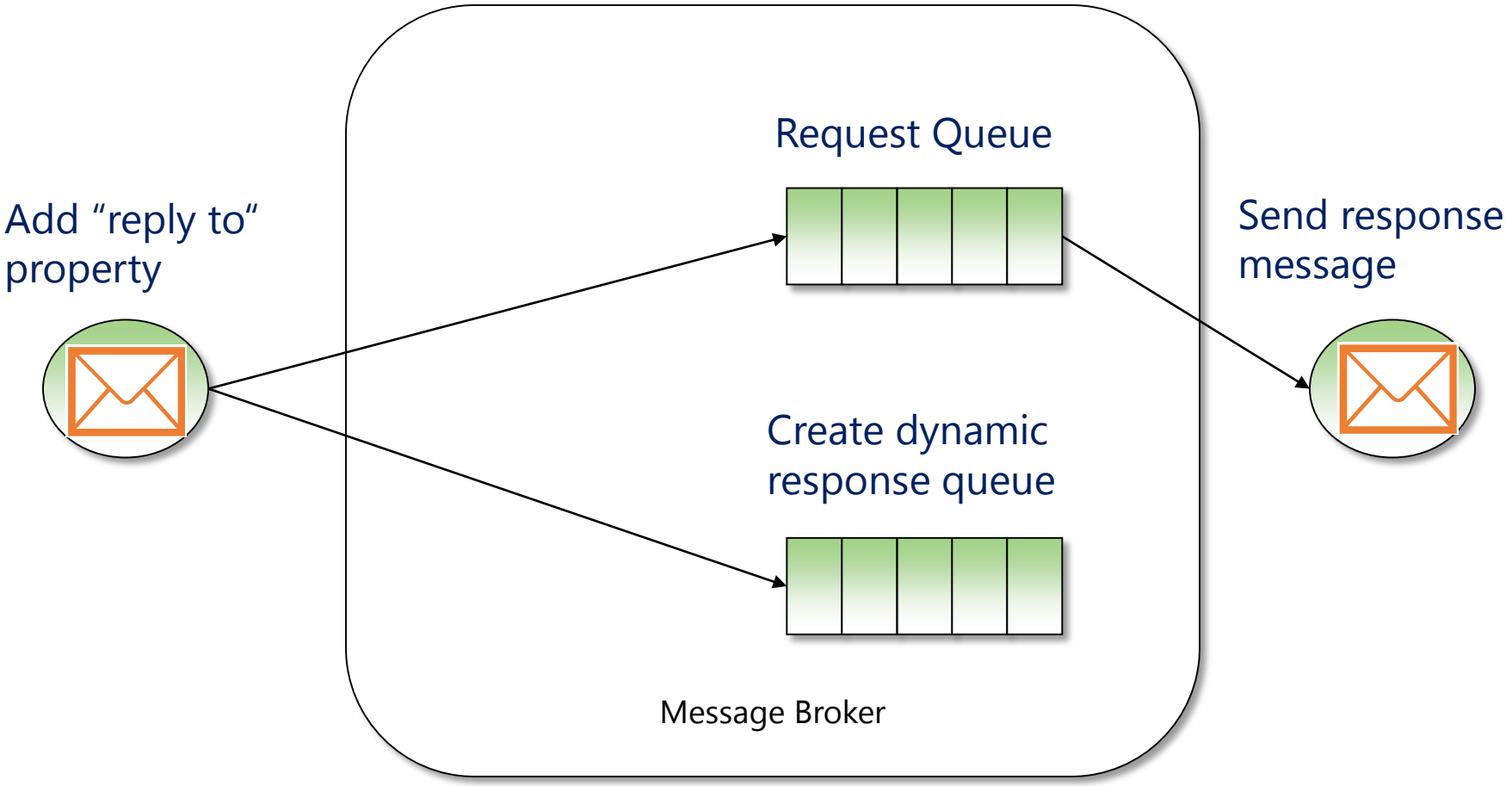
Message Broker

Demo – Publish Subscribe

RPC

Pattern

- **Overview**
  - The sender will start listening on a response queue
  - Message is sent to a queue via the default exchange
    - Message includes a response queue
  - The receiver gets the message and places a response message on the response queue
  - The sender gets the response message
- **Characteristics**
  - Exchange = The message is sent to default exchange
  - Exchange Type = N/A
  - Routing Key = is the queue name


Request Queue
Add “reply to“ property
Send response message
Create dynamic response queue
Message Broker

Demo – RPC

Summary

- **Common Message Exchange Patterns**
  - Simple One Way Messaging
  - Worker Queues
  - Publish Subscribe
  - RPC
- **Pretty simple to implement!**