RABBITMQ

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24 AUGUST 2023

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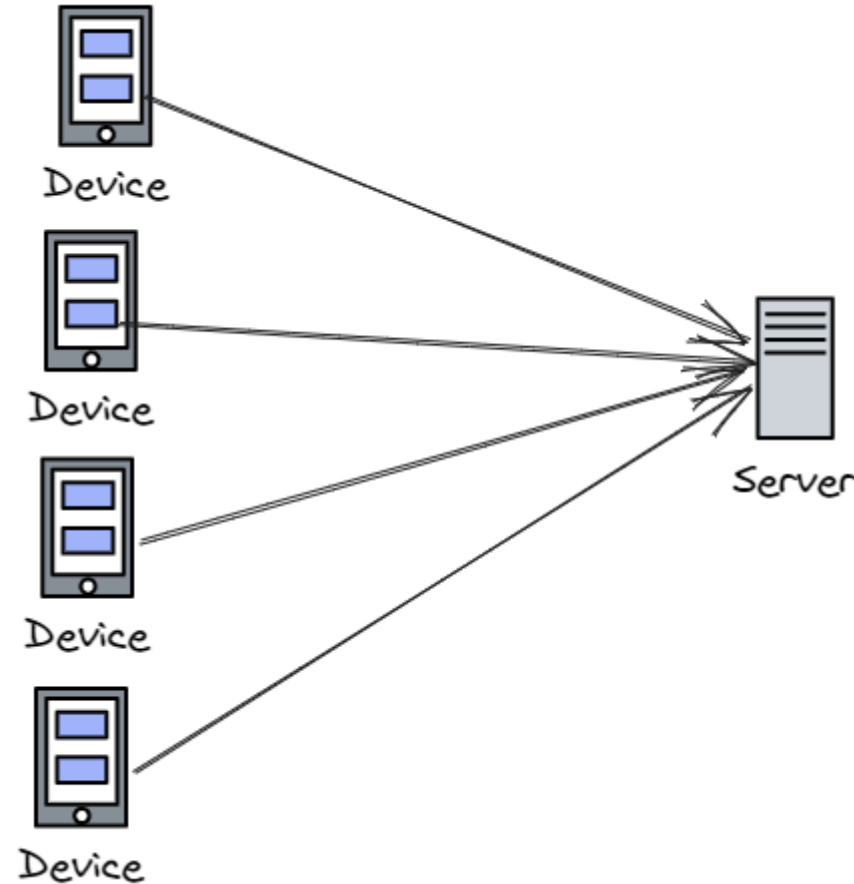
STANDARD MESSAGING

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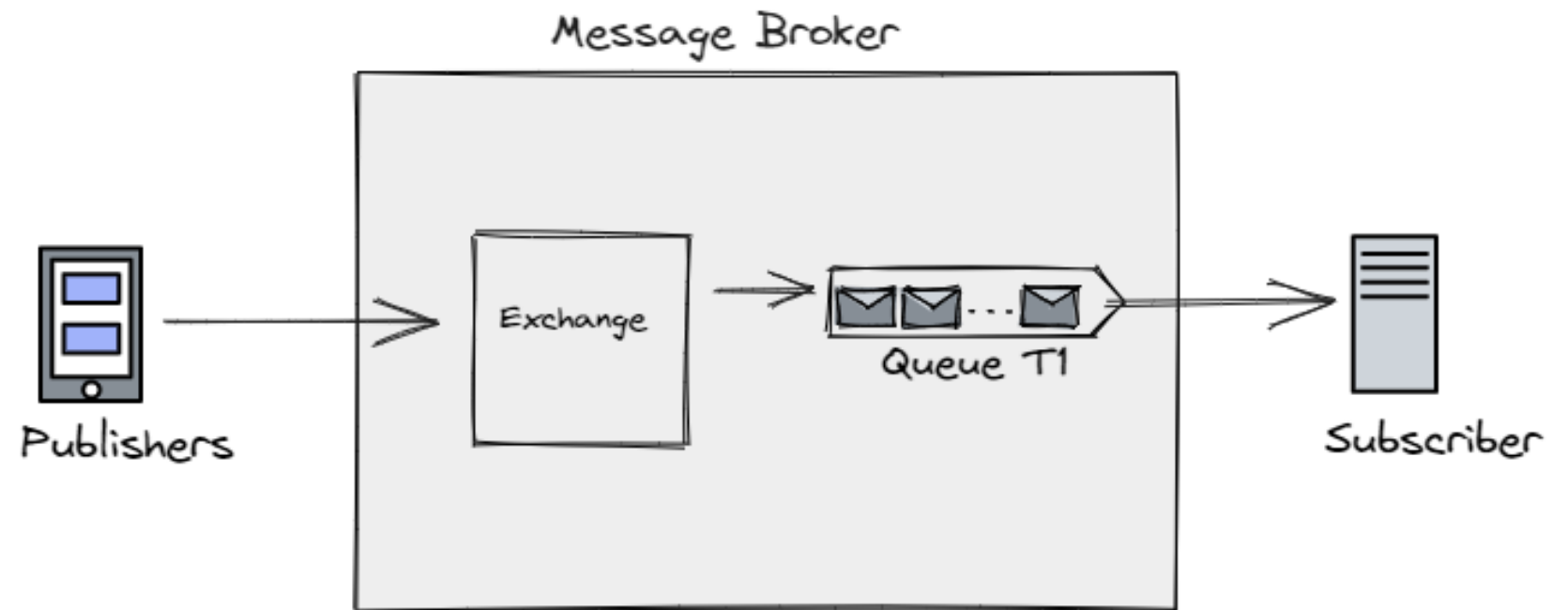MSC STUDENT @ ECE AU

PROBLEMS WITH STANDARD MESSAGING

Not async

Not scalable

Not resilience

MESSAGE BROKER RABBITMQ

Sensor and consumer

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MESSAGE BROKER RABBITMQ

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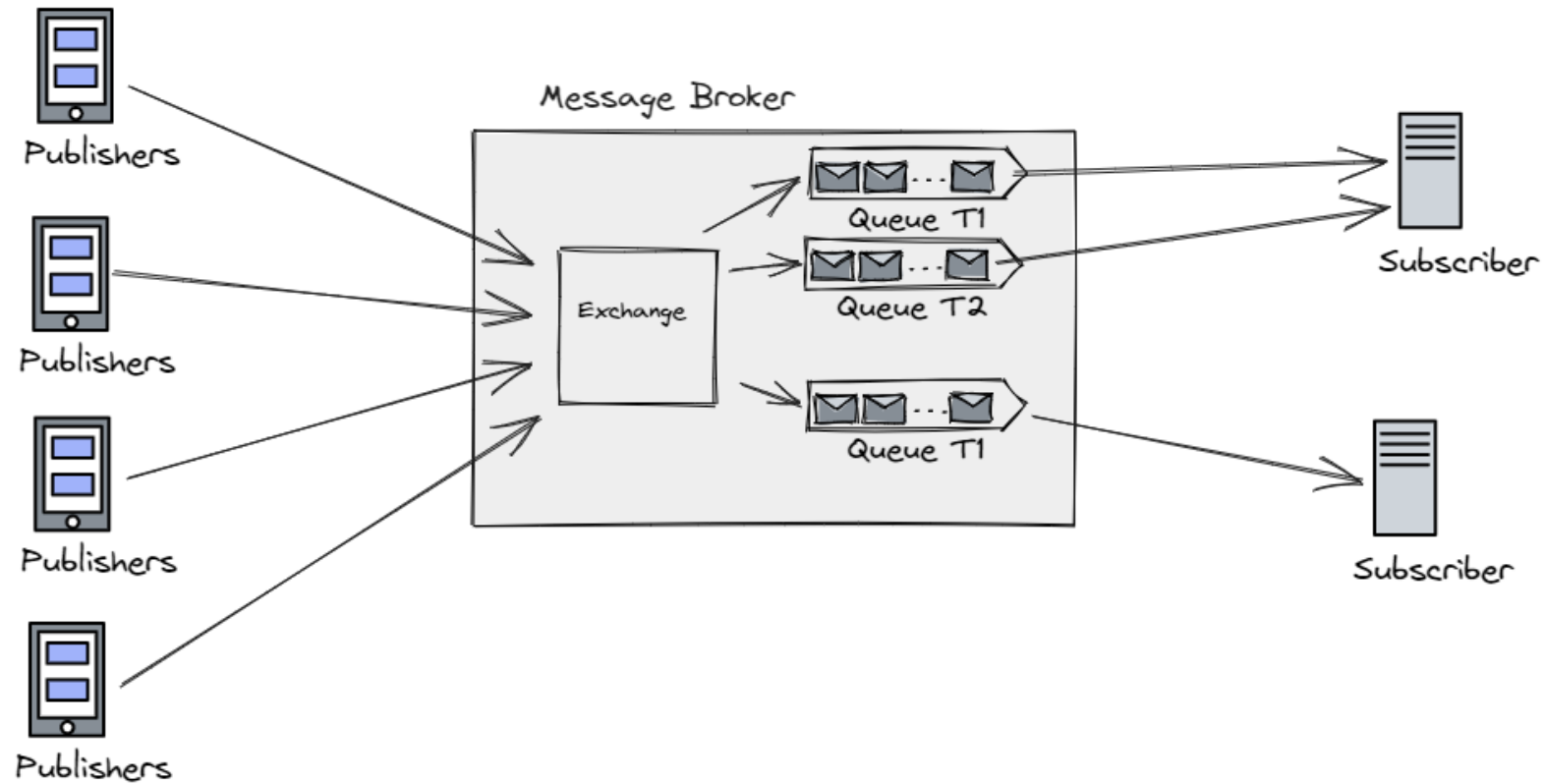
NEEDED FOR RABBITMQ

Pika

RabbitMQ Broker

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PSEUDOCODE SENDER

```python
parameters = pika.URLParameters(url)
connection = pika.BlockingConnection(parameters)
channel = connection.channel()

channel.basic_publish(exchange='',
                      routing_key='Topic1',
                      body='Hello World!')
```

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PSEUDOCODE RECEIVER

```python
parameters = pika.URLParameters(url)
connection = pika.BlockingConnection(parameters)
channel = connection.channel()
channel.queue_declare(queue= Topic1')
channel.basic_consume(queue= Topic1',
                      on_message_callback=callback,
                      auto_ack=True)
```

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PSEUDOCODE RECEIVER (CONT.)

```python
def callback(ch, method, properties, body):
    print(f" [x] Received {body}")
```

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HOW IT CAN BE USED IN SIMULATION

- Real-time data in simulations

- Communication between two different co-simulations

- Communication of data to visualization programs

- Send data for storing in database

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