

# gen\_rmq

## Simpler RabbitMQ consumers and publishers in Elixir



Elixir Berlin Meetup

08.11.2018, Berlin

Mateusz Korszun

[@mkorszun](#)

 Meltwater

# How Meltwater uses RabbitMQ

## Meltwater

- Number of clusters across the whole company
- Main data exchange mechanism

## Meltwater API

- ~15 microservices
- Half of them publishes / consumes messages to / from RabbitMQ
- 2 RabbitMQ clusters: self managed and CloudAMQP

# RabbitMQ + Elixir @ Meltwater API

- [amqp](#) elixir client
- Our typical consumer setup:
  - Long lived consumers
  - Creating connection / channel and keeping it in a state
  - Creating and binding a queue
  - Deadletter setup
  - Handling reconnections / consumer cancellations



# Simplified Consumer

```
defmodule Consumer do
  @behaviour GenRMQ.Consumer

  def init() do
    [
      queue: "gen_rmq_in_queue",
      exchange: "gen_rmq_exchange",
      routing_key: "#",
      prefetch_count: "10",
      uri: "amqp://guest:guest@localhost:5672"
    ]
  end

  def consumer_tag() do
    "test_tag"
  end

  def handle_message(%GenRMQ.Message{} = message) do
    ...
    GenRMQ.Consumer.ack(message)
  end
end

...

GenRMQ.Consumer.start_link(Consumer, name: Consumer)
```

# Simplified Publisher

```
defmodule Publisher do
  @behaviour GenRMQ.Publisher

  def init() do
    [
      exchange: "gen_rmq_exchange",
      uri: "amqp://guest:guest@localhost:5672"
    ]
  end
end

...

GenRMQ.Publisher.start_link(Publisher, name: Publisher)
GenRMQ.Publisher.publish(Publisher, "msg")
```

# Simplified Tests

GenRMQ.RabbitCase -  
test helpers:

- Test queue setup
- Publish / consume test messages
- Queue count / cleanup

```
use GenRMQ.RabbitCase

setup_all do
  {:ok, conn} = rmq_open(@uri)
  :ok = setup_out_queue(conn, @out_queue, @exchange)
  {:ok, rabbit_conn: conn, out_queue: @out_queue}
end

setup do
  purge_queues(@uri, [@out_queue])
end
```

# [https://github.com/meltwater/gen\\_rm](https://github.com/meltwater/gen_rm)

meltwater / gen\_rm

Unwatch 10 Unstar 23 Fork 6

<> Code Issues 9 Pull requests 5 Projects 0 Wiki Insights Settings

Elixir AMQP consumer and publisher behaviours Edit

elixir amqp rabbitmq behaviours otp testing abstraction Manage topics

46 commits 6 branches 6 releases 4 contributors MIT

Branch: master New pull request Create new file Upload files Find file Clone or download

mkorszun Update documentation (#51) Latest commit d3a9c1c 6 days ago

.github	Give possibility to specify routing key on publish (#4)	10 months ago
config	Upgrade amqp to version 1.0.3 (#22)	4 months ago
examples	Refactor consumer setup (#34)	3 months ago
lib	Update documentation (#51)	6 days ago
test	Update documentation (#51)	6 days ago
.credo.exs	Refactor consumer setup (#34)	3 months ago
.formatter.exs	Refactor consumer setup (#34)	3 months ago
.gitignore	Initial commit	10 months ago
.travis.yml	Add support for priority queues (#48)	8 days ago
CHANGELOG.md	Rename project to gen_rm (#1)	8 months ago



# Thank You!

## Q&A

Looking for Elixir jobs in Berlin? We hire Juniors too!

[Influencer Content Team](#) | [API Team](#)