

TRABALHO FINAL - CASE NETFLIX

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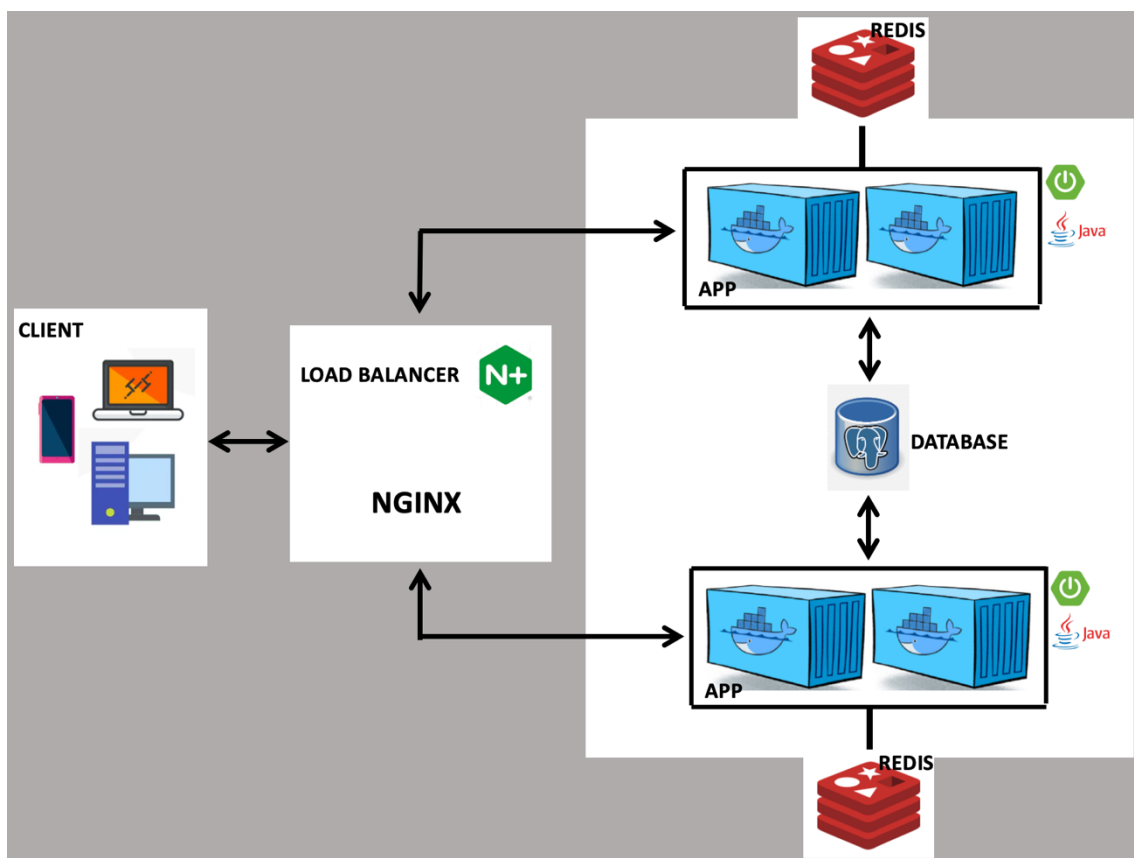
Utilizamos na solução 2 pares de containers contendo 1 sidecar com Redis em cada par, e ambos executando a aplicação.

O Redis, por sua vez, é usado como cache de informações. Suporta os containers para consulta do cache armazenado nele.

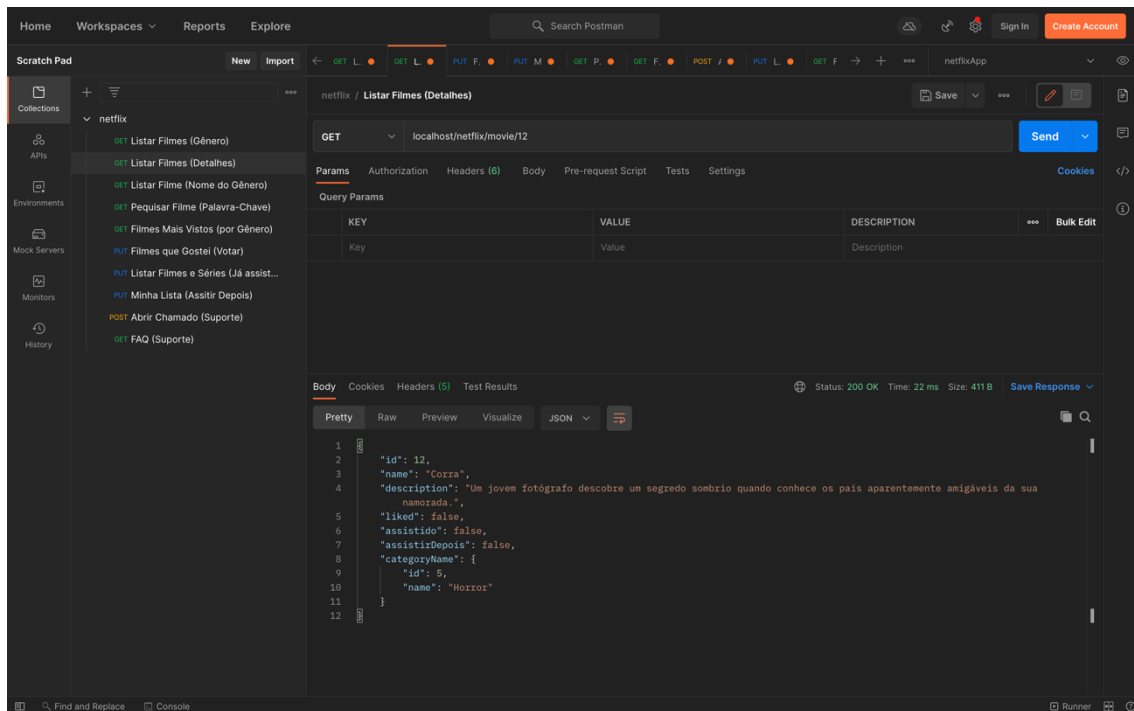
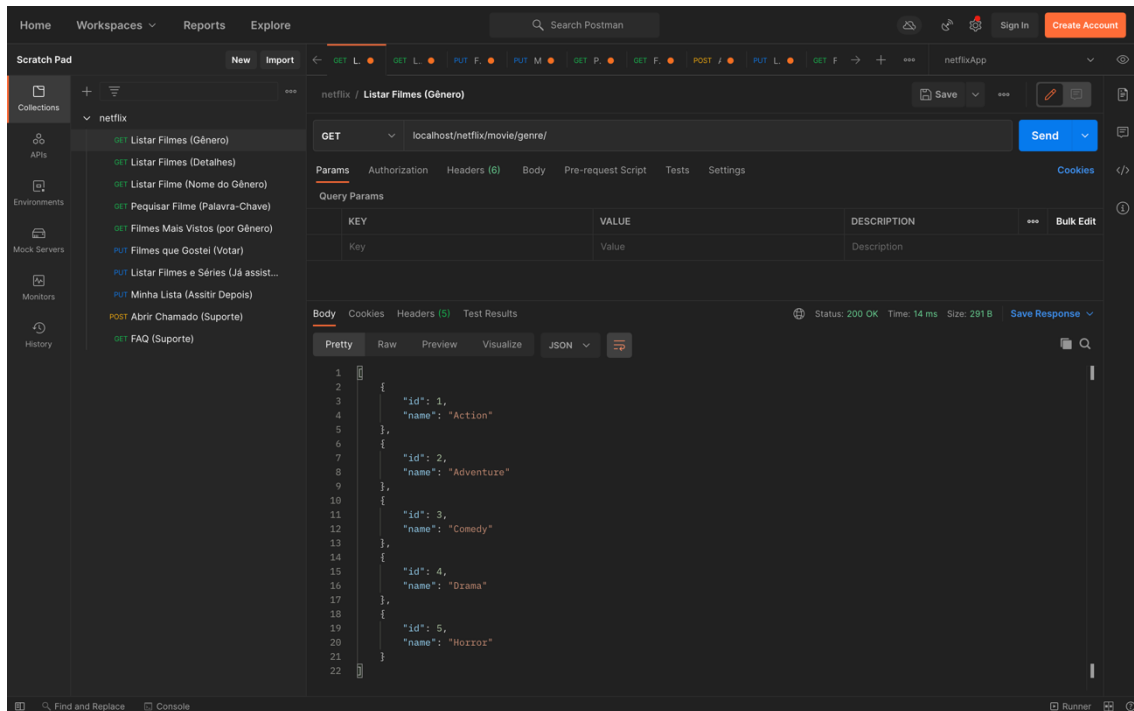
Para mensageria, utilizamos o RabbitMQ. Os pares de containers trabalham de maneira assíncrona gravando as mensagens trocadas no Redis, no sistema de fila de mensagens.

O banco de dados Postgres é utilizado para consulta de dados que persiste no mesmo.

Abaixo um desenho da topologia:



Imagens contendo os testes realizados abaixo:



Home Workspaces Reports Explore Search Postman

Scratch Pad New Import

netfixApp

netfix / Listar Filme (Nome do Gênero)

GET localhost/netfix/movie/genre/horror

Params Authorization Headers (6) Body Pre-request Script Tests Settings

Query Params

KEY	VALUE	DESCRIPTION
Key	Value	Description

Body Cookies Headers (5) Test Results

Status: 200 OK Time: 23 ms Size: 2.08 KB Save Response

Pretty Raw Preview Visualize JSON

```

1 {
2   "id": 9,
3   "name": "Invocacao do Mal",
4   "description": "Os investigadores paranormais Ed e Lorraine Warren trabalham para ajudar a família aterrorizada por uma entidade demoníaca em sua fazenda.",
5   "liked": false,
6   "assistido": false,
7   "assistirDepois": false,
8   "categoryName": {
9     "id": 5,
10    "name": "Horror"
11  }
12 }
13

```

Find and Replace Console

Home Workspaces Reports Explore Search Postman

Scratch Pad New Import

netfixApp

netfix / Pesquisar Filme (Palavra-Chave)

GET localhost/netfix/movie/search/wick

Params Authorization Headers (6) Body Pre-request Script Tests Settings

Query Params

KEY	VALUE	DESCRIPTION
Key	Value	Description

Body Cookies Headers (5) Test Results

Status: 200 OK Time: 16 ms Size: 11 KB Save Response

Pretty Raw Preview Visualize JSON

```

1 {
2   "id": 8,
3   "name": "John Wick III",
4   "description": "O lendário John Wick luta para sair de Nova York quando um contrato de 14 milhões de dólares faz dele o alvo dos maiores assassinos do mundo.",
5   "liked": false,
6   "assistido": false,
7   "assistirDepois": false,
8   "categoryName": {
9     "id": 1,
10    "name": "Action"
11  },
12   "assistirDepois": false
13 },
14 {
15   "id": 3,
16   "name": "John Wick",
17   "description": "John Wick é uma franquia americana de thriller de ação neo-noir criada pelo roteirista Derek Kolstad e de propriedade da Summit Entertainment.",
18   "liked": true,
19   "assistido": false,
20   "categoryName": {
21     "id": 1,
22     "name": "Action"
23   },
24   "assistirDepois": false
25 },
26

```

Find and Replace Console

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Scratch Pad New Import

netflix / Filmes Mais Vistos (por Gênero)

GET localhost/netflix/movies/moreview/1 Send

Params Authorization Headers (6) Body Pre-request Script Tests Settings Cookies

Query Params

KEY	VALUE	DESCRIPTION	Bulk Edit
Key	Value	Description	

Body Cookies Headers (5) Test Results Status: 200 OK Time: 16 ms Size: 389 B Save Response

Pretty Raw Preview Visualize JSON

```

1
2
3
4
5
6
7
8
9
10
11
12
13
14
{
  "id": 8,
  "filme": "John Wick III",
  "categoria": "Action",
  "visto": 7
},
{
  "id": 3,
  "filme": "John Wick",
  "categoria": "Action",
  "visto": 19
}

```

Find and Replace Console Runner

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Scratch Pad New Import

netflix / Filmes que Gostei (Votar)

PUT localhost/netflix/movie/liked/18 Send

Params Authorization Headers (7) Body Pre-request Script Tests Settings Cookies

Query Params

KEY	VALUE	DESCRIPTION	Bulk Edit
Key	Value	Description	

Body Cookies Headers (5) Test Results Status: 200 OK Time: 16 ms Size: 207 B Save Response

Pretty Raw Preview Visualize Text

```

1
2
3
4
5
6
7
8
9
10
11
12
13
14
Very well, you liked movie 'American Pie'

```

Find and Replace Console Runner

Home Workspaces Reports Explore Search Postman

Scratch Pad New Import

netflix / Listar Filmes e Séries (Já assistidos)

PUT localhost/netflix/movie/watched/19 Send

Params Authorization Headers (7) Body Pre-request Script Tests Settings Cookies

Query Params

KEY	VALUE	DESCRIPTION
Key	Value	Description

Body Cookies Headers (5) Test Results Status: 200 OK Time: 39 ms Size: 218 B Save Response

Pretty Raw Preview Visualize Text

```
1 The movie 'Gente Grande' marked as already watched. •
```

Find and Replace Console Runner

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Scratch Pad New Import

netflix / Minha Lista (Assistir Depois)

PUT localhost/netflix/movie/watchlater/4 Send

Params Authorization Headers (7) Body Pre-request Script Tests Settings Cookies

Query Params

KEY	VALUE	DESCRIPTION
Key	Value	Description

Body Cookies Headers (5) Test Results Status: 200 OK Time: 22 ms Size: 213 B Save Response

Pretty Raw Preview Visualize Text

```
1 Movie 'O Passageiro' scheduled to watch later. •
```

Find and Replace Console Runner

Home Workspaces Reports Explore Search Postman

Scratch Pad New Import netflixApp

netflix / FAQ (Suporte)

GET localhost/netflix/support/ Send

Params Authorization Headers (6) Body Pre-request Script Tests Settings Cookies

Query Params

KEY	VALUE	DESCRIPTION
Key	Value	Description

Body Cookies Headers (6) Test Results Status: 500 Internal Server Error Time: 39 ms Size: 443 B Save Response

Pretty Raw Preview Visualize JSON

```

1 {
2   "timestamp": "2021-05-02T01:26:00.577+0000",
3   "status": 500,
4   "error": "Internal Server Error",
5   "message": "could not extract ResultSet; SQL [n/a]; nested exception is org.hibernate.exception.SQLGrammarException: could
6   not extract ResultSet",
7   "path": "/netflix/support/"
8 }
```

Find and Replace Console Runner

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Scratch Pad New Import netflixApp

netflix / Filmes Mais Vistos (por Gênero)

GET localhost/netflix/movies/moreview/5 Send

Params Authorization Headers (6) Body Pre-request Script Tests Settings Cookies

Query Params

KEY	VALUE	DESCRIPTION
Key	Value	Description

Body Cookies Headers (6) Test Results Status: 200 OK Time: 16 ms Size: 222 B Save Response

Pretty Raw Preview Visualize JSON

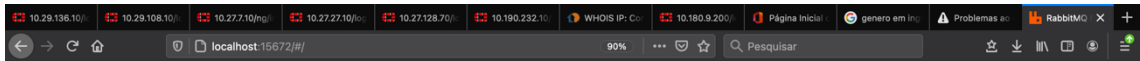
```

1 {
2   "id": 12,
3   "filme": "Coria",
4   "categoria": "Horror",
5   "visto": 36
6 }
```

Find and Replace Console Runner

```
elslima — com.docker.cli • docker exec -it 7766c7c0f842d5aa02591c64a...  
Last login: Sat May 1 22:30:50 on ttys005  
elslima@BR0C02C100TLVDF ~ % docker exec -it 7766c7c0f842d5aa02591c64a2cbdc2ccf87  
7228ffe5e8ec6a0f641fce3455fc /bin/sh  
[# redis-cli ]  
[127.0.0.1:6379> keys * ]  
(empty list or set)  
127.0.0.1:6379> █
```

```
elslima — com.docker.cli • docker exec -it 55054d024c53f8b341cf4e7c4...  
Last login: Sat May 1 22:30:19 on ttys004  
elslima@BR0C02C100TLVDF ~ % docker exec -it 55054d024c53f8b341cf4e7c487e2294bf01  
6565b547d08e755a6df9f170c940 /bin/sh  
[# redis-cli ]  
[127.0.0.1:6379> keys * ]  
1) "USER"  
127.0.0.1:6379> █
```

RabbitMQTM

RabbitMQ 3.8.14 Erlang 23.3.2

Refreshed 2021-05-01 22:35:46 Refresh every 5 seconds

Virtual host: All

Cluster rabbit@652ec4cb2933

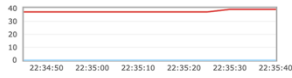
User guest Log out

[Overview](#) [Connections](#) [Channels](#) [Exchanges](#) [Queues](#) [Admin](#)

Overview

Totals

Queued messages last minute ?



Ready 39
Unacked 0
Total 39

Message rates last minute ?



Publish 0.00/s
Publisher confirm 0.00/s
Unroutable (return) 0.00/s
Unroutable (drop) 0.00/s
Disk read 0.00/s
Disk write 0.00/s

Global counts ?

Connections: 4 Channels: 8 Exchanges: 9 Queues: 2 Consumers: 4

Nodes

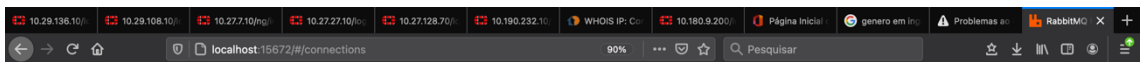
Name	File descriptors ?	Socket descriptors ?	Erlang processes	Memory ?	Disk space	Uptime	Info	Reset stats
rabbit@652ec4cb2933	43 1048576 available	4 943529 available	622 1048576 available	91 MiB 795 MiB high watermark	32 GiB 48 MiB low watermark	7m 56s	basic disc 2 rss	This node All nodes

Churn statistics

Ports and contexts

Export definitions

Import definitions

[HTTP API](#) [Server Docs](#) [Tutorials](#) [Community Support](#) [Community Slack](#) [Commercial Support](#) [Plugins](#) [GitHub](#) [Changelog](#)RabbitMQTM

RabbitMQ 3.8.14 Erlang 23.3.2

Refreshed 2021-05-01 22:35:49 Refresh every 5 seconds

Virtual host: All

Cluster rabbit@652ec4cb2933

User guest Log out

[Overview](#) [Connections](#) [Channels](#) [Exchanges](#) [Queues](#) [Admin](#)

Connections

All connections (4)

Pagination

Page 1 of 1 - Filter: ☐ Regex ?

Displaying 4 items , page size up to: 100

Overview			Details		Network		
Name	User name	State	SSL / TLS	Protocol	Channels	From client	To client
192.168.16.6:48128 rabbitConnectionFactory#949b94c:0	guest	running	o	AMQP 0-9-1	2	0 B/s	0 B/s
192.168.16.7:46806 rabbitConnectionFactory#48b9834c:0	guest	running	o	AMQP 0-9-1	2	0 B/s	0 B/s
192.168.16.8:48796 rabbitConnectionFactory#5573d277:0	guest	running	o	AMQP 0-9-1	2	0 B/s	0 B/s
192.168.16.9:43254 rabbitConnectionFactory#2cae90b:0	guest	running	o	AMQP 0-9-1	2	0 B/s	0 B/s

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10.29.136.10/ 10.29.108.10/ 10.27.7.10/mg/ 10.27.27.10/ 10.27.128.70/ 10.190.232.10/ WHOIS IP: Co 10.180.9.200/ Página Inicial genero em in Problemas a: RabbitMQ

localhost:15672/#/connections/192.168.16.6%3A48128 -> 192.168.16.4%3A5672 90% Pesquisar

Refreshed 2021-05-01 22:36:08 Refresh every 5 seconds Virtual host: All Cluster rabbit@652ec4cb2933 User guest Log out

RabbitMQ™


RabbitMQ 3.8.14 Erlang 23.3.2

Overview **Connections** Channels Exchanges Queues Admin

Connection 192.168.16.6:48128 -> 192.168.16.4:5672

Overview

Data rates **last minute**



From client: 0 B/s
To client: 0 B/s

Details

Client-provided name: rabbitConnectionFactory#6f94fb9d:0
Username: guest
Protocol: AMQP 0-9-1
Connected at: 2021-05-01 22:28:04
Authentication: PLAIN

State: running
Heartbeat: 60s
Frame max: 131072 bytes
Channel limit: 2047 channels

Channels

Overview

Channel	User name	Mode	State	Unconfirmed	Prefetch	Unacked	publish	confirm	unroutable (drop)	deliver / get	ack
192.168.16.6:48128 (1)	guest		idle	0	250	0					
192.168.16.6:48128 (2)	guest		idle	0		0	0.00/s	0.00/s	0.00/s		

Client properties

Runtime Metrics (Advanced)

Close this connection

HTTP API

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10.29.136.10/ 10.29.108.10/ 10.27.7.10/mg/ 10.27.27.10/ 10.27.128.70/ 10.190.232.10/ WHOIS IP: Co 10.180.9.200/ Página Inicial genero em in Problemas a: RabbitMQ

localhost:15672/#/connections/192.168.16.7%3A46806 -> 192.168.16.4%3A5672 90% Pesquisar

Refreshed 2021-05-01 22:36:14 Refresh every 5 seconds Virtual host: All Cluster rabbit@652ec4cb2933 User guest Log out

RabbitMQ™


RabbitMQ 3.8.14 Erlang 23.3.2

Overview **Connections** Channels Exchanges Queues Admin

Connection 192.168.16.7:46806 -> 192.168.16.4:5672

Overview

Data rates **last minute**



From client: 2 B/s
To client: 2 B/s

Details

Client-provided name: rabbitConnectionFactory#68b9834c:0
Username: guest
Protocol: AMQP 0-9-1
Connected at: 2021-05-01 22:28:08
Authentication: PLAIN

State: running
Heartbeat: 60s
Frame max: 131072 bytes
Channel limit: 2047 channels

Channels

Overview

Channel	User name	Mode	State	Unconfirmed	Prefetch	Unacked	publish	confirm	unroutable (drop)	deliver / get	ack
192.168.16.7:46806 (1)	guest		idle	0	250	0					
192.168.16.7:46806 (2)	guest		idle	0		0	0.00/s	0.00/s	0.00/s		

Client properties

Runtime Metrics (Advanced)

Close this connection

HTTP API

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Plugins

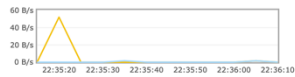
GitHub

Changelog

Connection 192.168.16.8:48796 -> 192.168.16.4:5672

Overview

Data rates last minute



From client: 0 B/s
To client: 0 B/s

Details

Client-provided name	rabbitConnectionFactory#6573d2f7:0	State	running
Username	guest	Heartbeat	60s
Protocol	AMQP 0-9-1	Frame max	131072 bytes
Connected at	2021-05-01 22:28:08	Channel limit	2047 channels
Authentication	PLAIN		

Channels

Overview				Details			Message rates					+/-
Channel	User name	Mode ?	State	Unconfirmed	Prefetch ?	Unacked	publish	confirm	unroutable (drop)	deliver / get	ack	
192.168.16.8:48796 (1)	guest		idle	0	250	0						
192.168.16.8:48796 (2)	guest		idle	0		0	0.00/s	0.00/s	0.00/s			

Client properties

Runtime Metrics (Advanced)

Close this connection



Connection 192.168.16.9:43254 -> 192.168.16.4:5672

Overview

Data rates last minute



From client: 0 B/s
To client: 0 B/s

Details

Client-provided name	rabbitConnectionFactory#2cae9b8:0	State	running
Username	guest	Heartbeat	60s
Protocol	AMQP 0-9-1	Frame max	131072 bytes
Connected at	2021-05-01 22:28:09	Channel limit	2047 channels
Authentication	PLAIN		

Channels

Overview				Details			Message rates					+/-
Channel	User name	Mode ?	State	Unconfirmed	Prefetch ?	Unacked	publish	confirm	unroutable (drop)	deliver / get	ack	
192.168.16.9:43254 (1)	guest		idle	0	250	0						
192.168.16.9:43254 (2)	guest		idle	0		0	0.00/s	0.00/s	0.00/s			

Client properties

Runtime Metrics (Advanced)

Close this connection



Channels

All channels (8)

Pagination

Page 1 of 1 - Filter: ☐ Regex ?

Displaying 8 items , page size up to: 100

Overview			Details			Message rates						+/-
Channel	User name	Mode ?	State	Unconfirmed	Prefetch ?	Unacked	publish	confirm	unroutable (drop)	deliver / get	ack	
192.168.16.6:48128 (1)	guest		idle	0	250	0						
192.168.16.6:48128 (2)	guest		idle	0		0	0.00/s	0.00/s	0.00/s			
192.168.16.7:46806 (1)	guest		idle	0	250	0						
192.168.16.7:46806 (2)	guest		idle	0		0	0.00/s	0.00/s	0.00/s			
192.168.16.8:48796 (1)	guest		idle	0	250	0						
192.168.16.8:48796 (2)	guest		idle	0		0	0.00/s	0.00/s	0.00/s			
192.168.16.9:43254 (1)	guest		idle	0	250	0						
192.168.16.9:43254 (2)	guest		idle	0		0	0.00/s	0.00/s	0.00/s			

Exchanges

All exchanges (9)

Pagination

Page 1 of 1 - Filter: ☐ Regex ?

Displaying 9 items , page size up to: 100

Name	Type	Features	Message rate in	Message rate out	+/-
(AMQP default)	direct	D			
amq.direct	direct	D			
amq.fanout	fanout	D			
amq.headers	headers	D			
amq.match	headers	D			
amq.rabbitmq.trace	topic	D I			
amq.topic	topic	D			
exchange	topic	D			
exchange_listener	topic	D	0.00/s	0.00/s	

[Add a new exchange](#)

Queues

All queues (2)

Pagination

Page 1 of 1 - Filter: ☐ Regex ?

Displaying 2 items , page size up to: 100

Overview				Messages			Message rates			+/-
Name	Type	Features	State	Ready	Unacked	Total	incoming	deliver	/ get	
netflix_messages	classic		idle	0	0	0				
netflix_messages_listener	classic		idle	40	0	40	0.00/s			

[Add a new queue](#)[HTTP API](#) [Server Docs](#) [Tutorials](#) [Community Support](#) [Community Slack](#) [Commercial Support](#) [Plugins](#) [GitHub](#) [Changelog](#)

Connection operations last minute ?



Created 0.00/s

Closed 0.00/s

Channel operations last minute ?



Created 0.00/s

Closed 0.00/s

Queue operations last minute ?



Declared 0.00/s

Created 0.00/s

Deleted 0.00/s

Ports and contexts

Listening ports

Protocol	Bound to	Port
amqp	::	5672
clustering	::	25672
http	::	15672
http/prometheus	::	15692

Web contexts

Context	Bound to	Port	SSL	Path
RabbitMQ Management	0.0.0.0	15672	o	/
RabbitMQ Prometheus	0.0.0.0	15692	o	/