

# RSocket + Spring

## An introduction

Mark Heckler

Spring Developer & Advocate

[mark@thehecklers.com](mailto:mark@thehecklers.com)

[mheckler@vmware.com](mailto:mheckler@vmware.com)

@mkheck

Oleh Dokuka

RSocket Developer & Advocate

[oleh.dokuka@icloud.com](mailto:oleh.dokuka@icloud.com)

@OlehDokuka

# Mark

- Author
- Architect & Developer
- Java Champion, Rockstar
- Spring Developer & Advocate
- Creador y curador de
- Pilot ✈️

**SPRING NOTICIAS**  
EN ESPAÑOL



New book!

Now available for  
early access

<https://bit.ly/springbootbook>

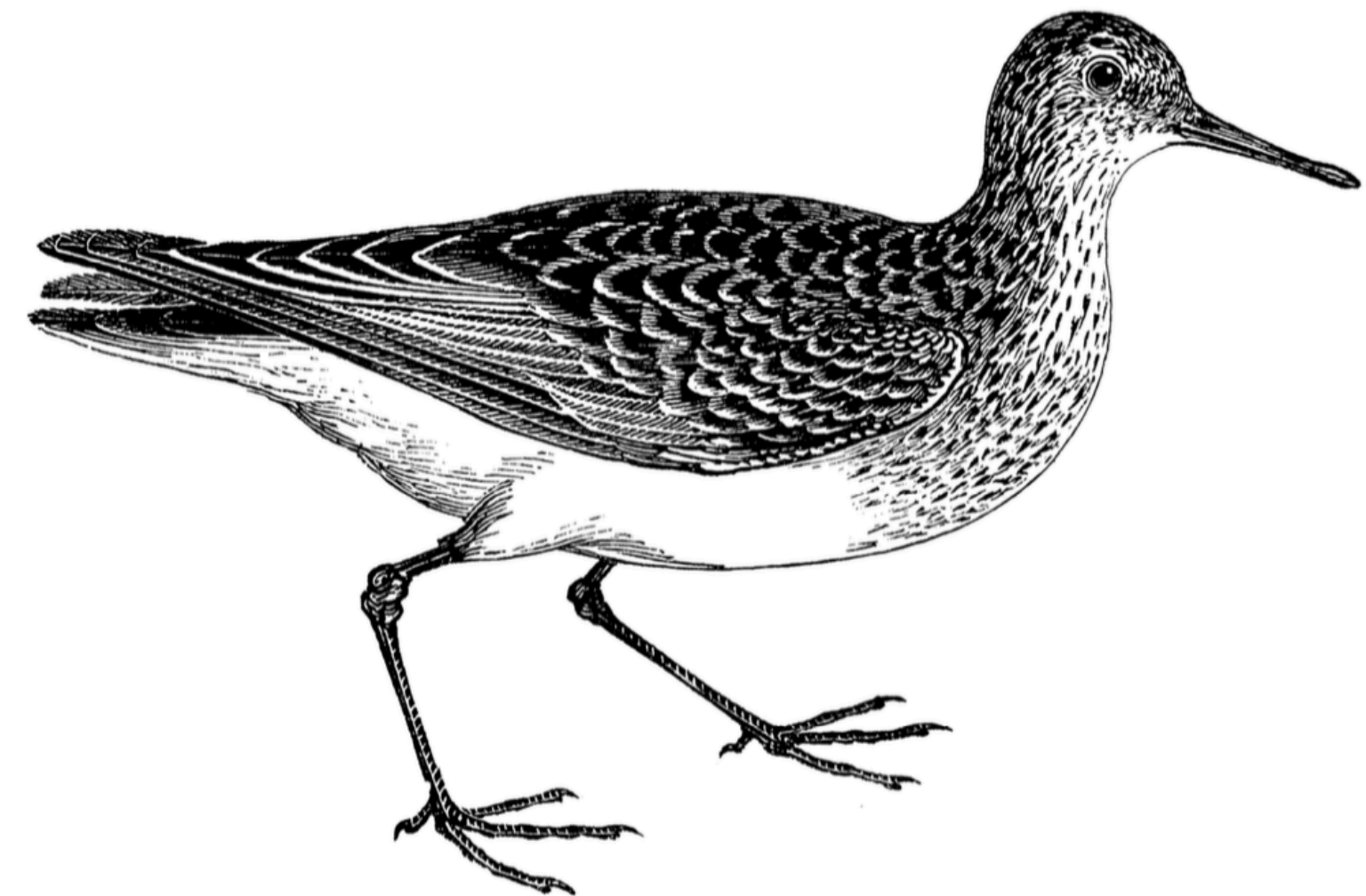
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@olehdokuka

O'REILLY®

# Spring Boot Up & Running

Building Cloud Native Java and  
Kotlin Applications



Mark Heckler

vmware®

# Oleh

- Author
- Architect & Developer
- Java Champion, Rockstar
- RSocket Developer & Advocate

The RSocket logo, featuring a stylized 'R' icon followed by the word 'Socket' in a bold, pink font.

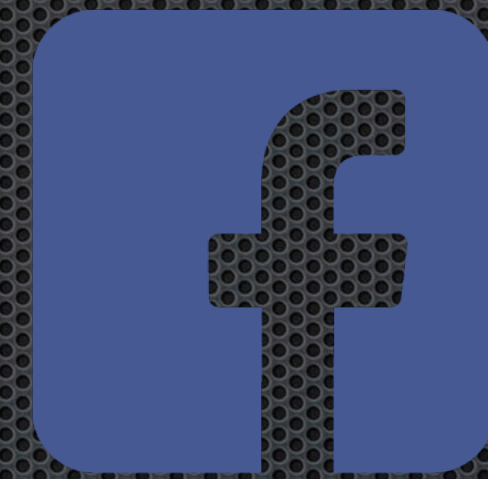


socket

# RSocket

- Open Source Layer 5/6 communication protocol
- Cloud oriented
- Reactive Streams semantics
- Resilience first

NETFLIX



Alibaba.com™

Pivotal™

Built by leaders in microservices  
and cloud computing

# Vanilla

# with Spring

# for Cloud

SPRING BRIDGE 15th May 2020 #springjobridge



What is RSocket

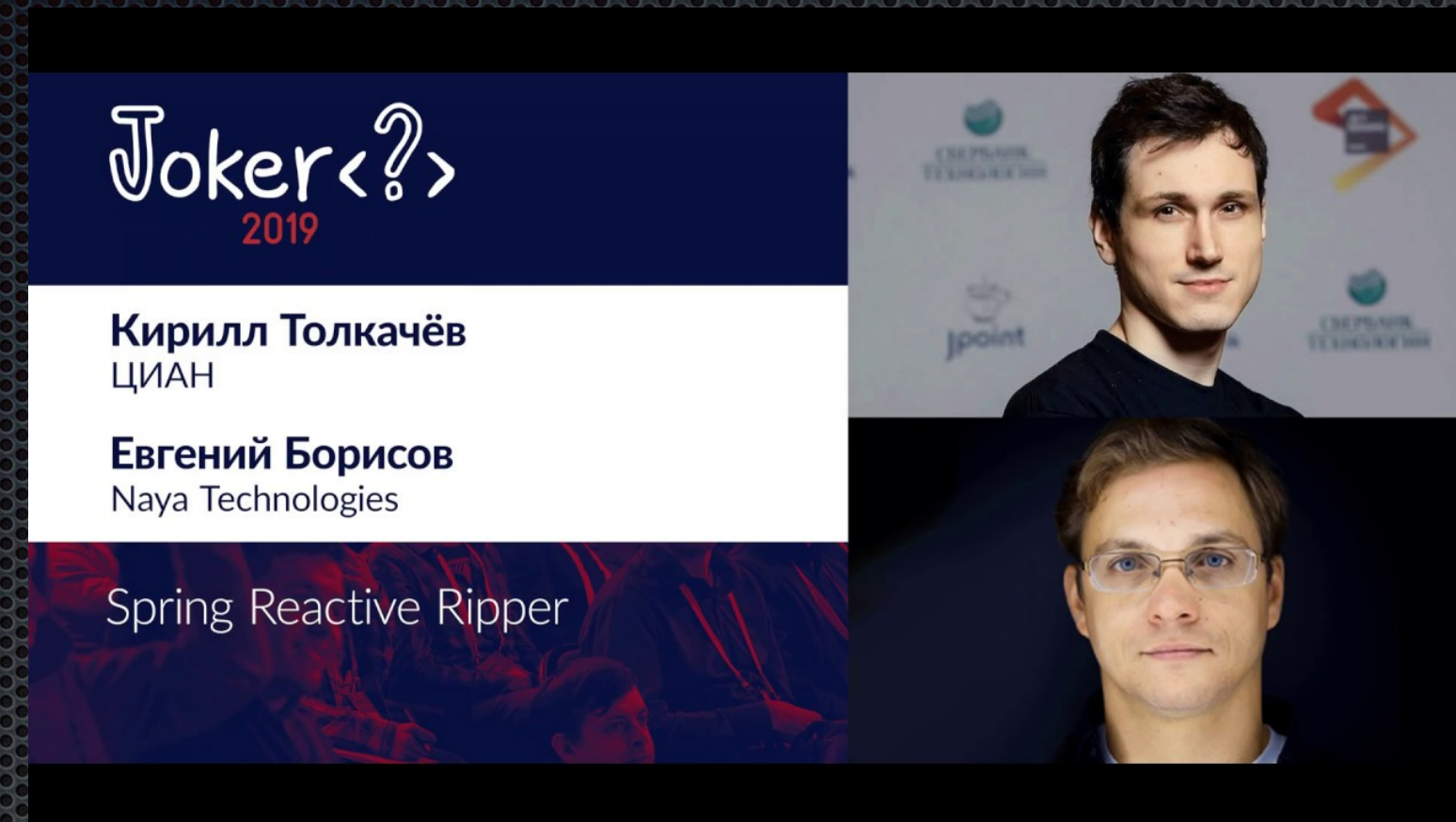
Oleh Dokuka / @OlehDokuka

Joker<?> 2019

Кирилл Толкачев  
ЦИАН


Евгений Борисов  
Naya Technologies

Spring Reactive Ripper



JPoint 2020

RSocket to bring the next generation of Service Mesh



Олег Докука  
Netifi, Inc

## Getting Started With RSocket

Ben Wilcock, Developer Relations at VMware




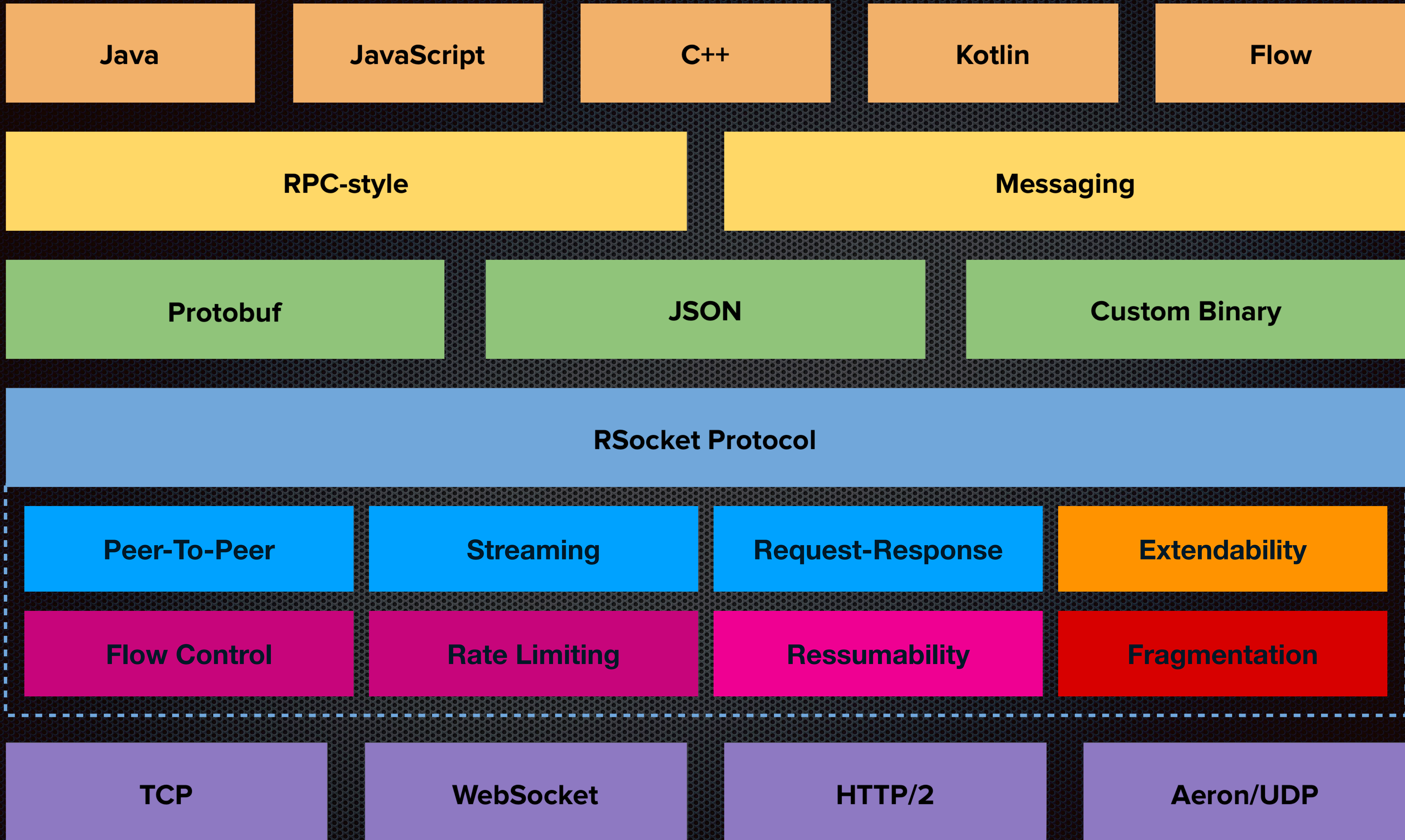
JOSH LONG · 龍之春 | the RSocket Revolution

```
Terminal Shell Edit View Window Help
{"message": "ni hao Josh @ 2020-08-11T09:17:35.820 DEBUG --- [actor-tcp-nio-1] i.r.FrameLogger : receiving ->
Frame => Stream ID: 1 Type: NEXT Flags: 0b100000 Length: 62
Data:
+-----+
| 0 1 2 3 4 5 6 7 8 9 a b c d e f |
+-----+
| 00000000| 7b 22 6d 65 73 73 61 67 65 22 3a 22 6e 69 20 68 | {"message": "ni h
| 00000010| 61 6f 20 4a 6f 73 68 20 40 20 32 30 32 30 2d 30 | ao Josh @ 2020-0
| 00000020| 38 2d 31 31 54 30 39 3a 31 37 3a 33 34 2e 38 30 | 8-11T09:17:34.80
| 00000030| 37 35 36 32 5a 21 22 7d | 7562Z!"}
+-----+
2020-08-11 09:17:35.820 INFO --- [actor-tcp-nio-1] rsc : onNext({"message": "ni hao Josh @ 2020-08-1
1T09:17:34.807562Z!"})
{"message": "ni hao Josh @ 2020-08-11T09:17:34.807562Z!"}
2020-08-11 09:17:36.831 DEBUG --- [actor-tcp-nio-1] i.r.FrameLogger : receiving ->
Frame => Stream ID: 1 Type: NEXT Flags: 0b100000 Length: 62
Data:
+-----+
| 0 1 2 3 4 5 6 7 8 9 a b c d e f |
+-----+
| 00000000| 7b 22 6d 65 73 73 61 67 65 22 3a 22 6e 69 20 68 | {"message": "ni h
| 00000010| 61 6f 20 4a 6f 73 68 20 40 20 32 30 32 30 2d 30 | ao Josh @ 2020-0
| 00000020| 38 2d 31 31 54 30 39 3a 31 37 3a 33 35 2e 38 32 | 8-11T09:17:35.82
| 00000030| 30 30 34 37 5a 21 22 7d | 0047Z!"}
+-----+
2020-08-11 09:17:36.831 INFO --- [actor-tcp-nio-1] rsc : onNext({"message": "ni hao Josh @ 2020-08-1
1T09:17:35.820047Z!"})
{"message": "ni hao Josh @ 2020-08-11T09:17:35.820047Z!"}
```

## Connect Your Functions with RSocket

Spencer Gibb, Spring Cloud Core Lead at VMware;  
Oleg Zhurakousky, Software Engineer at VMware







socket



Let's code!



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# RSocket News

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# RSocket Java 1.1.0 is out!

- ✦ Better Performance (JMH tests shown 10x improvements in RPS)
- ✦ New RSocketClient API

```
Mono<RSocket> source = RSocketConnector.create()
    .connect(TcpClientTransport.create("localhost", 7000));

RSocketClient rSocketClient = RSocketClient.from(source);
```

```
rSocketClient
    .requestResponse(
        Mono.fromCallable(
            () -> DefaultPayload.create("Test Request")
        )
    )
    .subscribe();
```

```
public interface RSocketClient extends Disposable {  
  
    Mono<Void> fireAndForget (Mono<Payload> payloadMono);  
  
    Mono<Payload> requestResponse (Mono<Payload> payloadMono);  
  
    Flux<Payload> requestStream (Mono<Payload> payloadMono);  
  
    Flux<Payload> requestChannel (Publisher<Payload> payloads);  
}
```

# RSocket Java 1.1.0 is out!

- ✦ Better Performance (JMH tests shown 10x improvements in RPS)
- ✦ New RSocketClient API
- ✦ New Loadbalancer API



```
RSocketClient rSocketClient =  
    LoadbalanceRSocketClient  
        .builder(producer)  
        .roundRobinLoadbalanceStrategy()  
//      .weightedLoadbalanceStrategy()  
        .build();
```

# RSocket Kotlin 0.11.x

- ✦ Multiplatform Support
- ✦ Convenient **Coroutines** / **Flow** Based API

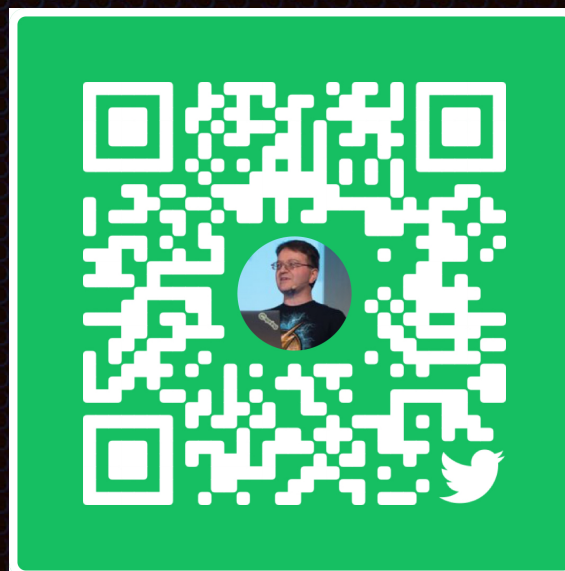
# RSocket Roadmap

# RSocket Roadmap

- ✦ RSocket Spec 2.0 is coming
- ✦ RSocket TCK
- ✦ RSocket-JS (fully rewritten with TypeScript)
- ✦ RSocket-Swift

# Resources

- ✦ Follow us on Twitter for tips, updates
  - ✦ @mkheck
  - ✦ @OlehDokuka
  - ✦ @rstoya05
- ✦ [bitly.com/springbootbook](https://bitly.com/springbootbook)
- ✦ @springbootbook



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