

SpringOne

# What is Spring ?

September 1–2, 2021

[springone.io](https://springone.io)

# Forward-Looking Statements

This presentation contains forward-looking statements including, among other things, statements regarding VMware's strategic and growth opportunities; planned spin-off from its parent company, Dell Technologies Inc. (Dell); expansion of VMware's offerings; and potential benefits to VMware and its customers and partners of the same. These forward-looking statements are subject to applicable safe harbor provisions under federal securities laws, such as the Private Securities Litigation Reform Act of 1995. Actual results could differ materially from those projected in the forward-looking statements as a result of certain risk factors, including but not limited to: (1) the delay or failure to consummate the spin-off from Dell; (2) the impact of the COVID-19 pandemic on our operations, financial condition, our customers, the business environment and global and regional economies; (3) adverse changes in general economic or market conditions; (4) delays or reductions in consumer, government and information technology spending; (5) competitive factors, such as pricing pressures, industry consolidation, entry of new competitors into the industries in which we compete, as well as new product and marketing initiatives by VMware's competitors; (6) rapid technological changes in the virtualization software, cloud, end user, security and mobile computing industries; (7) VMware's ability to enter into, maintain and extend strategically effective partnerships, collaborations and alliances; (8) VMware's relationship with Dell, Dell's ability to control matters requiring VMware stockholder approval and matters relating to Dell's investment in VMware; and (9) changes in VMware's financial condition. These forward-looking statements are made as of the initial date of this presentation, are based on current expectations and are subject to uncertainties and changes in condition, significance, value and effect as well as other risks detailed in documents filed with the Securities and Exchange Commission, including VMware's most recent reports on Form 10-K and Form 10-Q and current reports on Form 8-K that we may file from time to time, which could cause actual results to vary from expectations. VMware assumes no obligation to, and does not currently intend to, update any such forward-looking statements after the initial date of this presentation.

# GLENN RENFRO

**Works on –**

**Spring Cloud Data Flow,  
Spring Cloud Task, &  
Spring Batch**

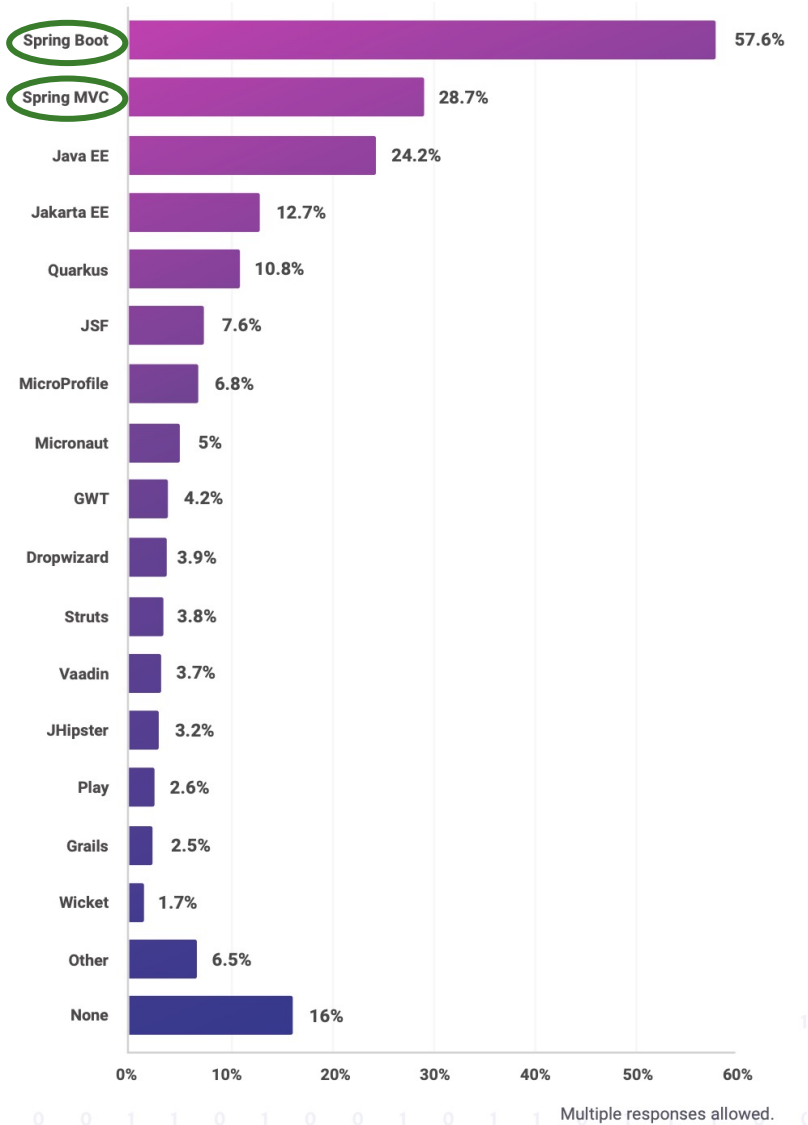
**Board of Directors – AJUG & DevNexus**

**Twitter –**

**@cppwfs**

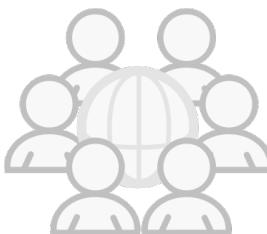


# According to Snyk's 2021 JVM Ecosystem Report



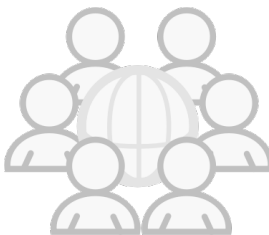
“The Java world is still a Spring-dominated world, with over half of the market using Spring Boot and almost a third using Spring MVC..”

[Snyk.io](https://snyk.io)



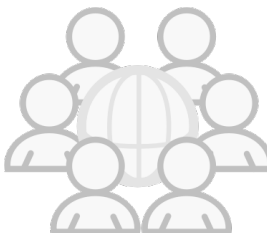
Spring's growth is accelerating

*81.5 Million Downloads for  
the Spring Boot dependency  
in 2020*



# Spring's growth is accelerating

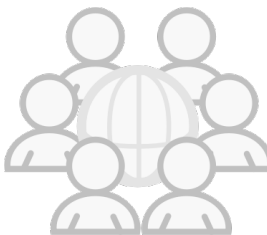
*+34% increase between '19  
and '20*



Spring's growth is accelerating

*56,800 Stars on GitHub for  
Spring Boot*

*13% increase year  
over year*







Spring is an integration framework, designed to take lots of different technologies and allow you to combine them in ways that feel natural.



It gives you a  
consistent  
programming model ...

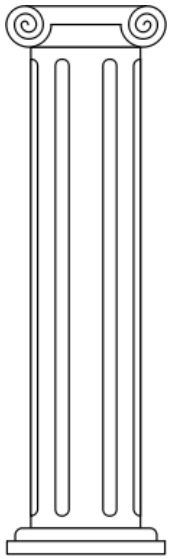




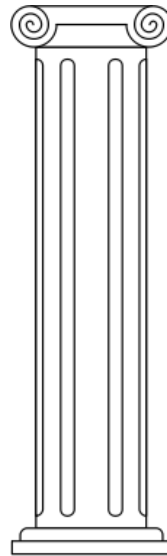




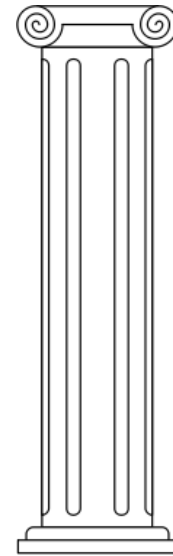
# Inversion Of Control



# Dependency Injection

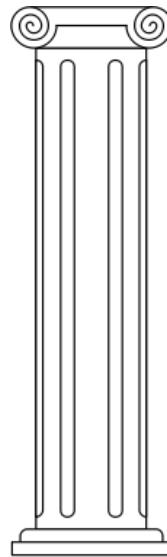


- Utils
- Testing
- DB Tools





# MVC



# MVC Old School



...





# Spring MVC

```
<web-app...>
...
<context-param>
  <param-name>contextConfigLocation</param-name>
  <param-value>/WEB-INF/HelloWorld-servlet.xml</param-value>
</context-param>
<listener>
  <listener-class>
    org.springframework.web.context.ContextLoaderListener
  </listener-class>
</listener>
</web-app>
```

```
<beans xmlns = "http://www.springframework.org/schema/beans"
  xmlns:context = "http://www.springframework.org/schema/context"
  xmlns:xsi = "http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation = "http://www.springframework.org/schema/beans
    http://www.springframework.org/schema/beans/spring-beans-4.3.xsd
    http://www.springframework.org/schema/context
    http://www.springframework.org/schema/context/spring-context-4.3.xsd">

  <context:component-scan base-package = "my.package" />

  <bean class = "org.springframework.web.servlet.view.InternalResourceViewResolver">
    <property name = "prefix" value = "/WEB-INF/jsp/" />
    <property name = "suffix" value = ".jsp" />
  </bean>
</beans>
```

```
@Controller
@RequestMapping("/hello")
public class HelloWorldController {
  @RequestMapping(method = RequestMethod.GET)
  public String printHello(ModelMap model) {
    return "hello world";
  }
}
```





Spring Boot  
Spring Framework  
Spring Data JDBC Extensions  
Spring Data JPA  
Spring Data LDAP  
Spring Data MongoDB  
Spring Data Redis  
Spring Data R2DBC  
Spring Data REST  
Spring Data for Apache Cassandra  
Spring Data for Apache Geode  
Spring Data for Pivotal GemFire  
Spring Data Couchbase  
Spring Data Elasticsearch  
Spring Data Envers  
Spring Data Neo4j  
Spring for Apache Hadoop  
Spring Cloud Azure  
Spring Cloud Alibaba  
Spring Cloud for Amazon Web Services  
Spring Cloud Bus  
Spring Cloud CLI  
Spring Cloud for Cloud Foundry

Spring Cloud Cluster  
Spring Cloud Commons  
Spring Cloud Config  
Spring Cloud Connectors  
Spring Cloud Consul  
Spring Cloud Contract  
Spring Cloud Function  
Spring Cloud Gateway  
Spring Cloud GCP  
Spring Cloud Netflix  
Spring Cloud Open Service Broker  
Spring Cloud Pipelines  
Spring Cloud Schema Registry  
Spring Cloud Security  
Spring Cloud Skipper  
Spring Cloud Sleuth  
Spring Cloud Stream  
Spring Cloud Stream Applications  
Spring Cloud Stream App Starters  
Spring Cloud Task  
Spring Cloud Task App Starters  
Spring Cloud Vault  
Spring Cloud Zookeeper  
Spring Cloud App Broker  
Spring Cloud Circuit Breaker

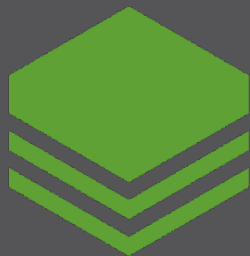
Spring Cloud Kubernetes  
Spring Cloud OpenFeign  
Spring Cloud Data Flow  
Spring Security  
Spring Security Kerberos  
Spring Security OAuth  
Spring Security SAML  
Spring Session  
Spring Session Core  
Spring Session Data Redis  
Spring Session JDBC  
Spring Session Hazelcast  
Spring Session MongoDB  
Spring Session for Apache Geode & GemFire  
Spring Integration  
Spring HATEOAS  
Spring REST Docs  
Spring Batch  
Spring AMQP  
Spring for Apache Kafka  
Spring LDAP  
Spring Statemachine  
Spring Vault  
Spring GraphQL  
Spring Native

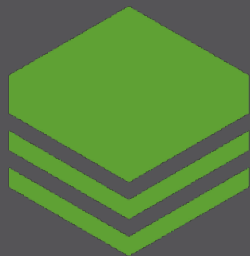












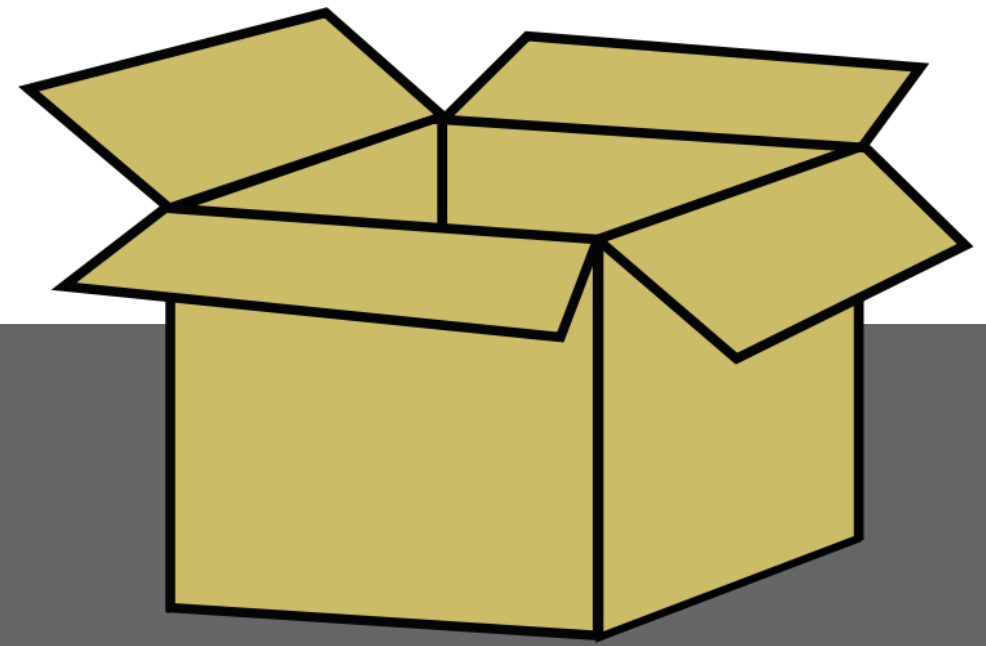


- JDBC
- JPA
- LDAP
- MongoDB
- Redis

- R2DBC
- REST
- Apache Casandra
- Apache Geode
- Apache Solr

- Couchbase
- Elasticsearch
- Envers
- Neo4j
- ...





# Spring MVC

```
<web-app...>
...
<context-param>
  <param-name>contextConfigLocation</param-name>
  <param-value>/WEB-INF/HelloWorld-servlet.xml</param-value>
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  <listener-class>
    org.springframework.web.context.ContextLoaderListener
  </listener-class>
</listener>
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  xsi:schemaLocation = "http://www.springframework.org/schema/beans
    http://www.springframework.org/schema/beans/spring-beans-4.3.xsd
    http://www.springframework.org/schema/context
    http://www.springframework.org/schema/context/spring-context-4.3.xsd">

  <context:component-scan base-package = "my.package" />

  <bean class = "org.springframework.web.servlet.view.InternalResourceViewResolver">
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```
@Controller
@RequestMapping("/hello")
public class HelloWorldController {
    @RequestMapping(method = RequestMethod.GET)
    public String printHello(ModelMap model) {
        return "hello world";
    }
}
```



# Spring Boot



```
@RestController
public class HelloWorldController {
    @RequestMapping("/hello")
    public String printHello() {
        return "hello world";
    }
}
```

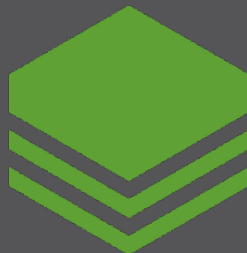


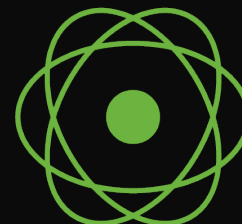
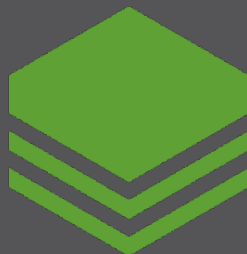




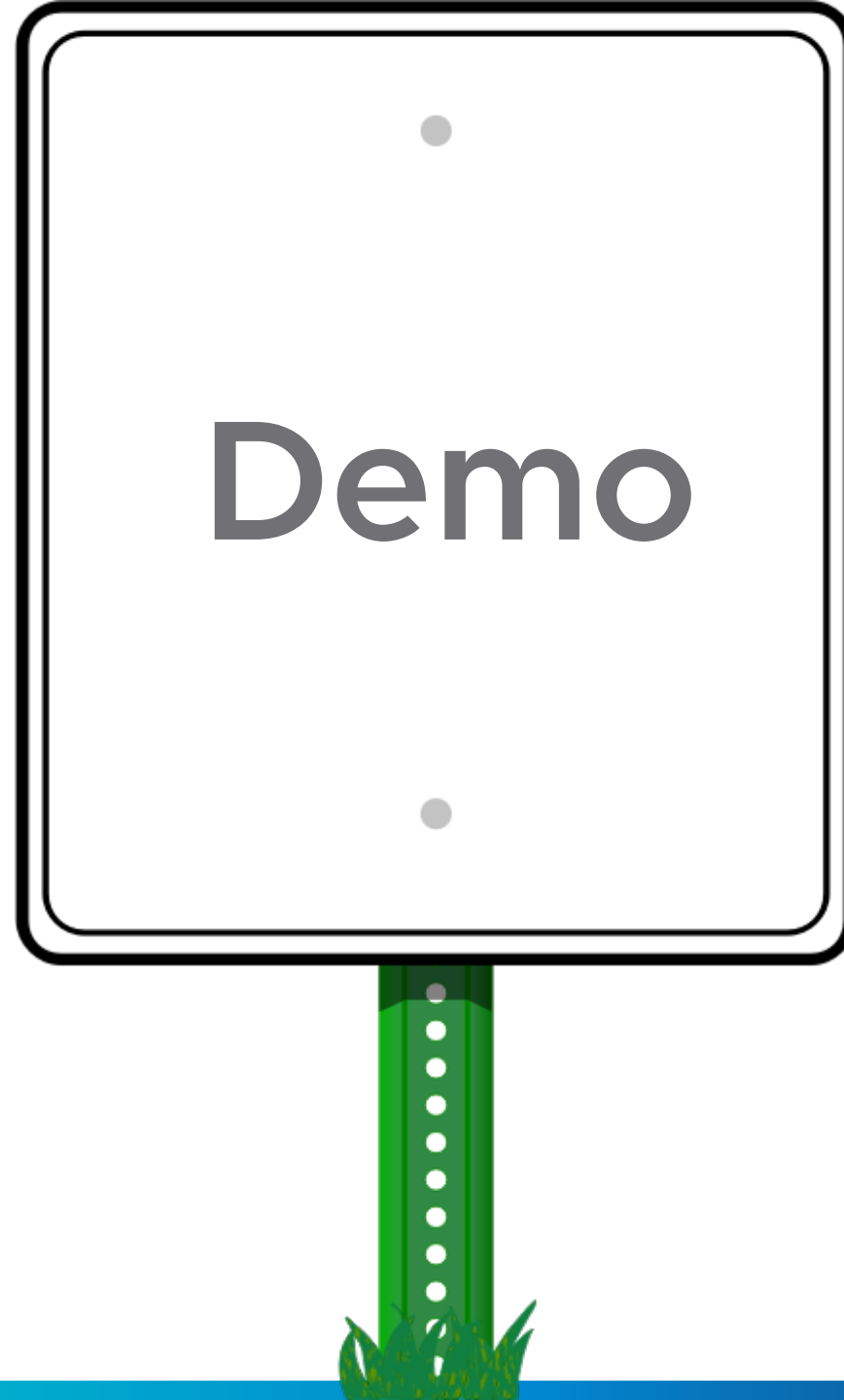
- Spring Cloud Azure
- Spring Cloud Alibaba
- Spring Cloud AWS
- Spring Cloud Config
- Spring Cloud Contract
- Spring Cloud Function
- Spring Cloud Gateway
- Spring Cloud GCP
- Spring Cloud Security
- Spring Cloud Schema Registry
- Spring Cloud Sleuth
- Spring Cloud Stream
- Spring Cloud Task
- Spring Cloud Vault
- Spring Cloud Zookeeper
- ...





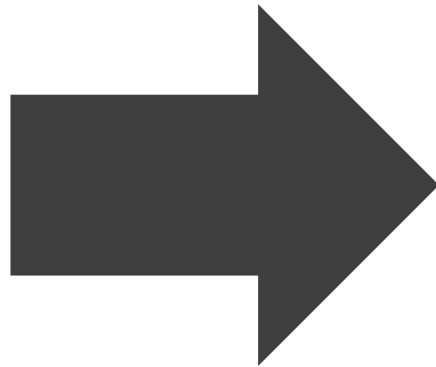








start.  
spring.  
io





Spring Boot—Production Boost  
Sept 2, 11:00 AM EDT



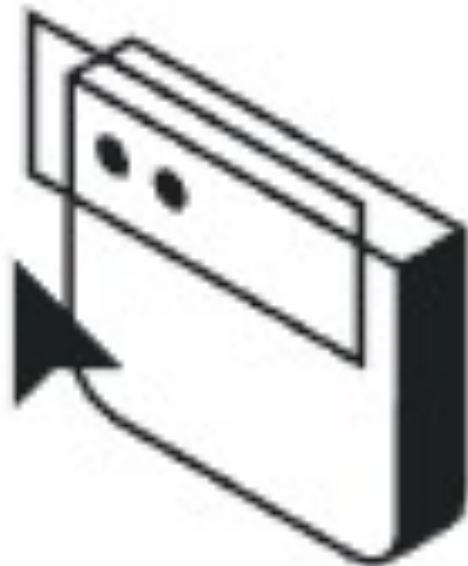
Bootiful Spring Tooling for the Masses  
Sept 2, 11:35 AM EDT



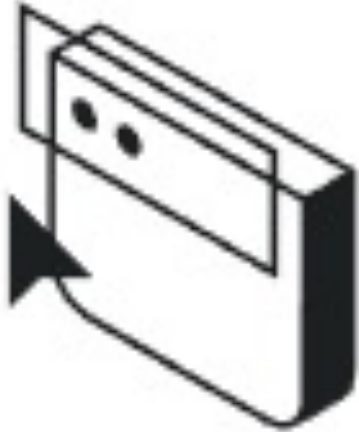
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Security



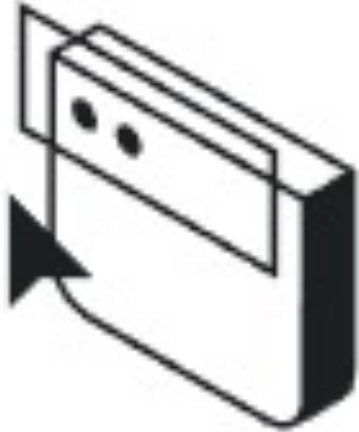
Data Access



Observability



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Spring Security 5.5 From Taxi to Takeoff  
Sep 1, 4:05 PM–5:00 PM EDT



A Spring Data's Guide to Persistence  
Sep 2, 10:05 AM–11:00 AM EDT



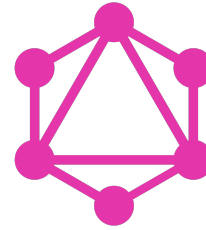
Tracing Issues in Your Application  
Sep 2, 1:05 PM–2:00 PM EDT

Mainstage: Watch for Marcin  
Sep 2, 9:00 AM–10:00 AM EDT



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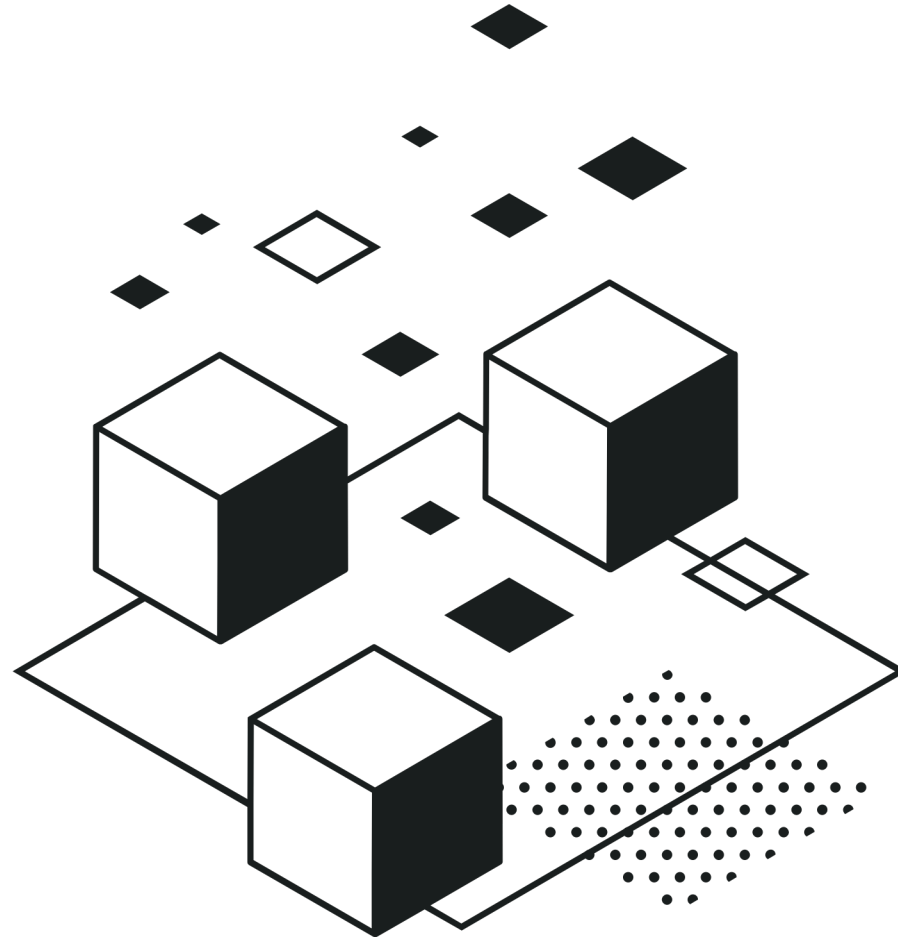


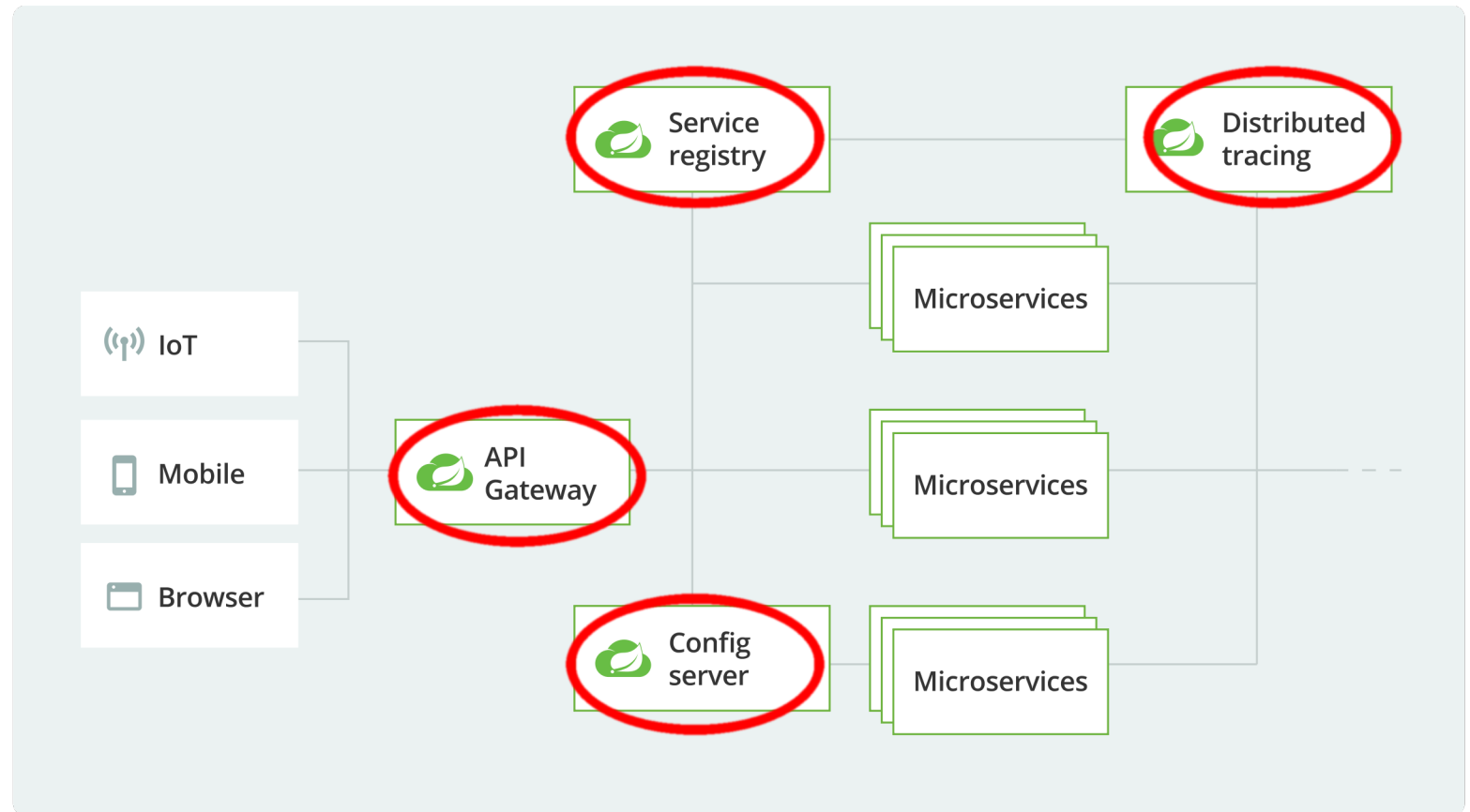
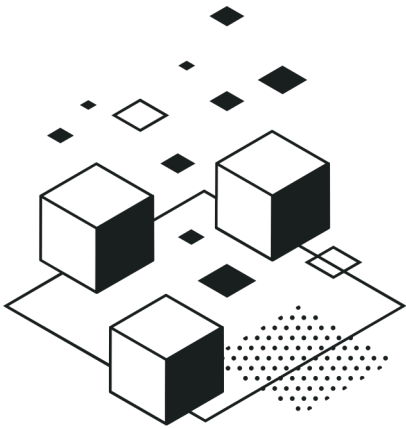
Spring GraphQL

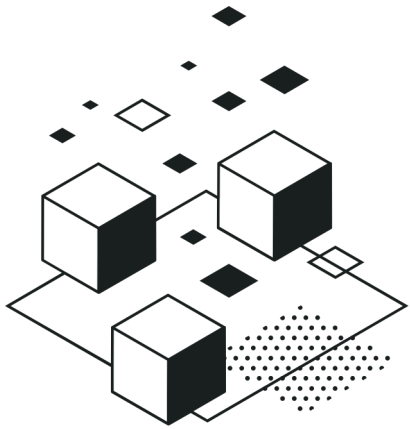
Sep 1, 11:05 AM–12:00 PM EDT



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Rapid Development with Azure Spring Cloud

Sep 1, 1:05 PM–2:00 PM EDT



API Gateway How-To: The Many Ways to Apply the Gateway Pattern

Sep 1, 12:35 PM–1:00 PM EDT



Resilient and Adaptable Systems with Cloud Native APIs

Catch it on YouTube 😊



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Inner Loop Development with Spring Boot  
on Kubernetes

Catch it on YouTube 😊

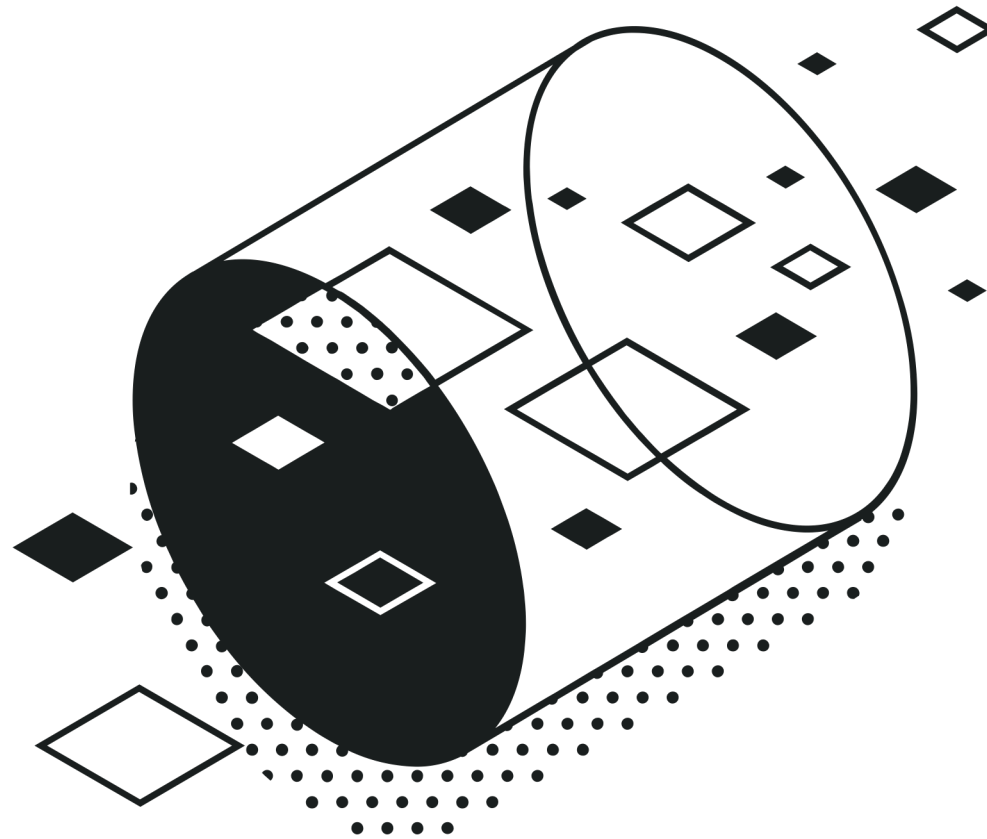


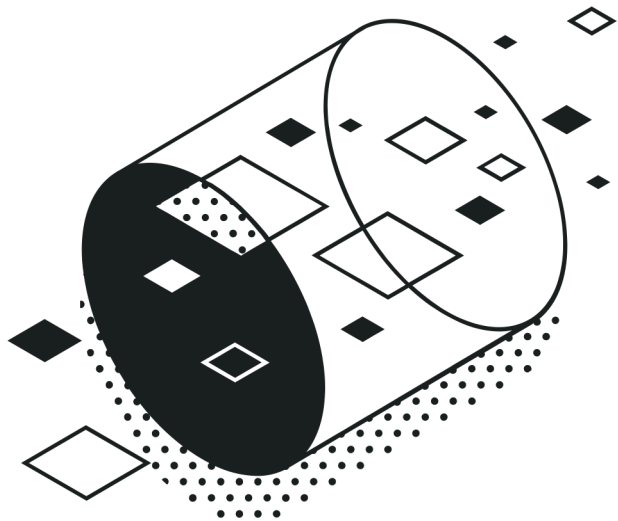
Next-Generation Cloud Native Apps with  
Spring Cloud and Kubernetes

Sep 1, 11:05 AM–12:00 PM EDT



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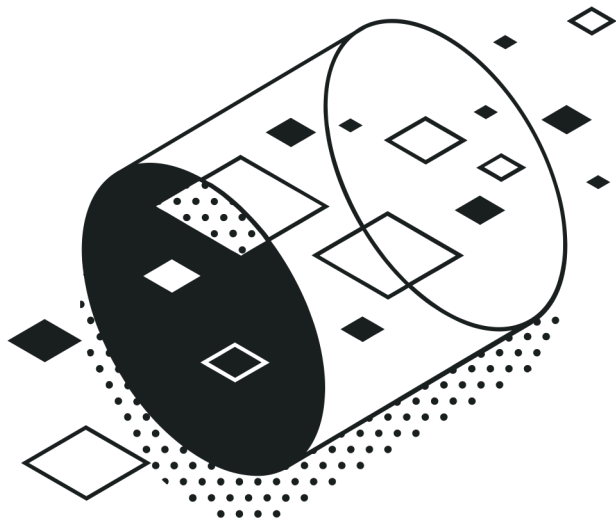
Spring Cloud Stream



Spring Cloud Data Flow



SpringOne



Full-Stack Observability for IoT Event Stream  
Data Processing at Penske

Sep 2, 3:05 PM–3:30 PM EDT



Driving the Data Pipelines for Connected  
Vehicles with Spring Cloud Data Flow

Sep 2, 3:35 PM–4:00 PM EDT



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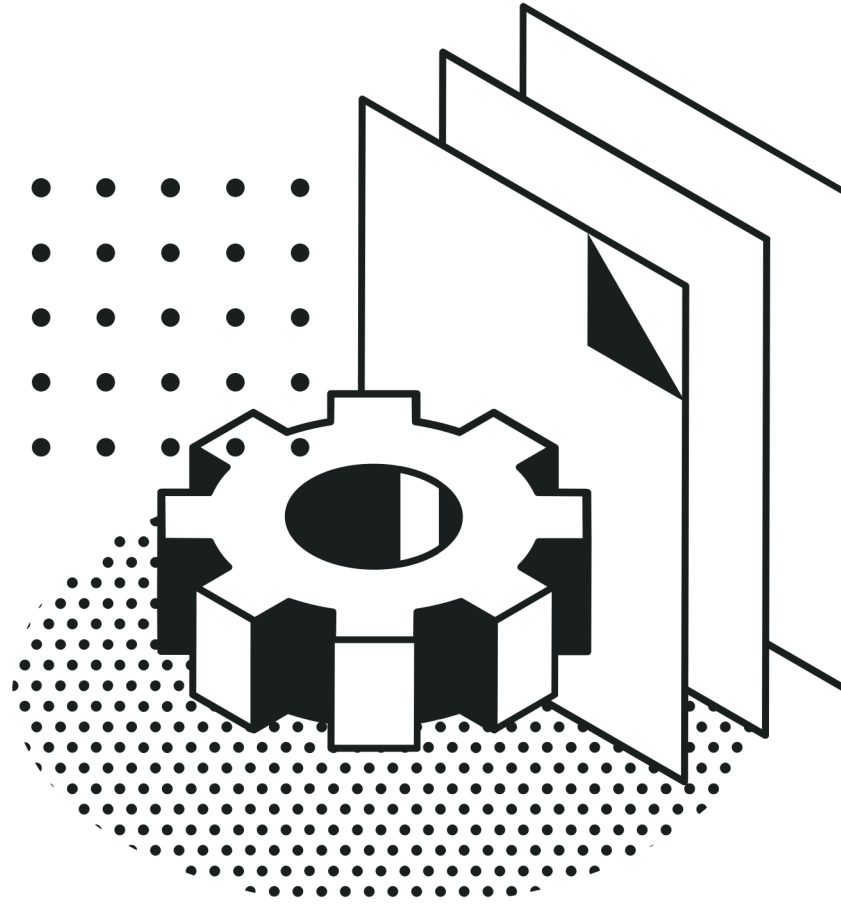
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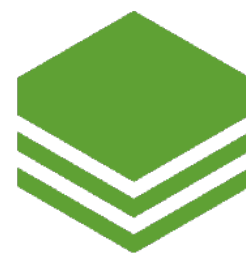
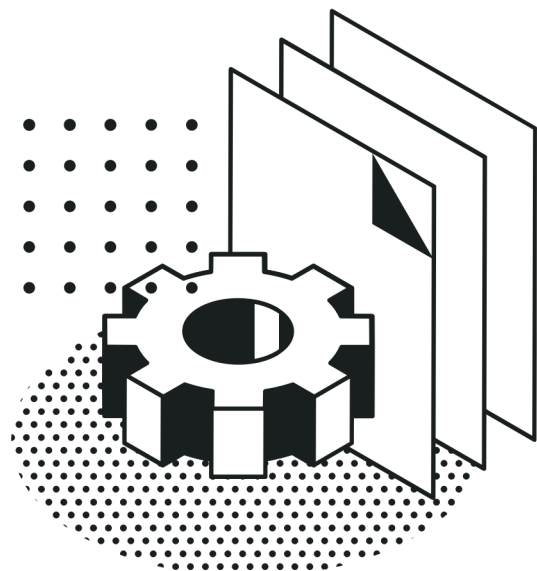


## Spring Cloud Function: Where We Were, Where We Are, and Where We're Going

Sep 2, 11:05 AM–12:00 PM EDT







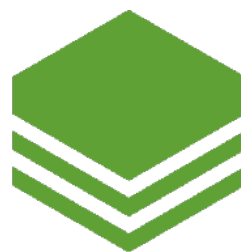
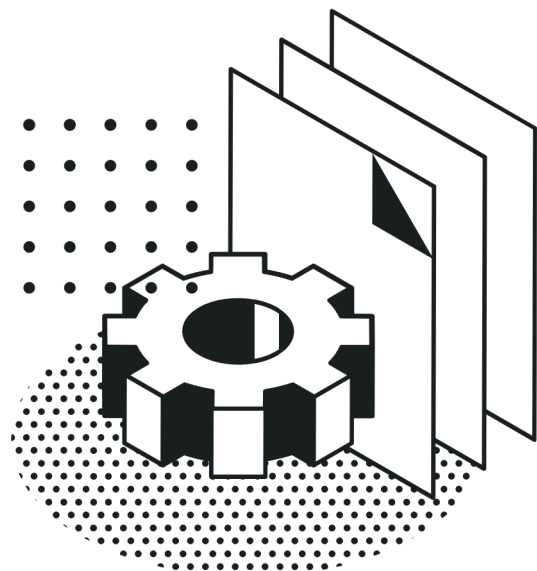
Spring Batch



Orchestration



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## Application Modernization: Migrating Mainframe Apps to the Cloud Using Spring

Sep 2, 5:05 PM–6:00 PM EDT



SpringOne





Spring Native and Spring AOT

Sep 2, 10:05 AM–11:00 AM EDT



Going Serverless Using the  
Spring Framework Ecosystem

Sep 2, 2:05 PM–3:00 PM EDT



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From Spring Framework 5.3 to 6.0

Catch it on YouTube 😊

## The Future



SpringOne



# spring.io

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## Spring makes Java productive.

[WHY SPRING](#)[QUICKSTART](#)[NEWS](#)[Announcing: The NEW Spring Website!](#)[SpringOne 2020 goes virtual](#)[SpringOne](#)

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## Spring For Architects

<https://springone.io/2021/sessions/spring-for-architects>

## Proactively Designing for Diversity, Equity, and Inclusion

<https://springone.io/2021/sessions/proactively-designing-for-diversity-equity-and-inclusion>

 @s1p #springone

# Thank You!

<https://github.com/cppwfs/S12021Demo>