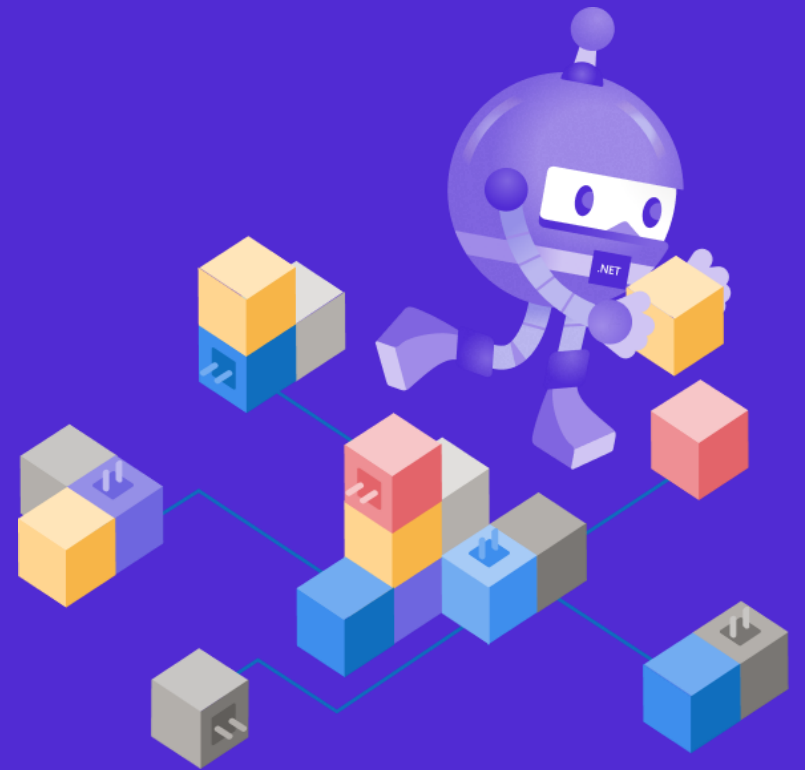# A Journey into .NET Microservices with

steeltoe®

.NET Conf 2020

David Dieruf - @dierufdavid

You're going to the cloud.

```
---
applications:
- name: some-cool-app
  instances: 3
  memory: 256M
  buildpack: dotnet_core_buildpack
```

.NET foundation

Logs

[nope] IIS logs, Event Store, To local disk

[yup] Write to console, let platform forward to aggregator

Metrics

[nope] IIS, Do nothing

[yup] Endpoint for scraping (Prometheus, telegraf, ...)

Health

[nope] Global.asax, Do nothing

[yup] Endpoint for status (as HTTP 200)

Environment & Instance Info

[nope] IIS, Manually write everything :(

[yup] Endpoint for querying

Connection

```
services.AddDbContext<TodoContext>(options =>
                          options.UseSqlServer(Configuration));
```

oohh the [backing] services!

Highly Available

Multiple instances, Multiple datacenters(zones)

Resilient to change

```
public class HelloWorldCommand : HystrixCommand<string>
{
    public HelloWorldCommand(string name)
      : base(HystrixCommandGroupKeyDefault.AsKey("HelloWorldGroup"),
            () => { return "Hello" + name; },
            () => { return "Hello" + name + " via fallback"; })
    {
    }
}
```

.NET foundation

A cloud-native rock star.

```
(x) => {
    x. GetType() is typeof [Database | Cache | Messaging |
Config | Discovery]
}
```

External Configuration

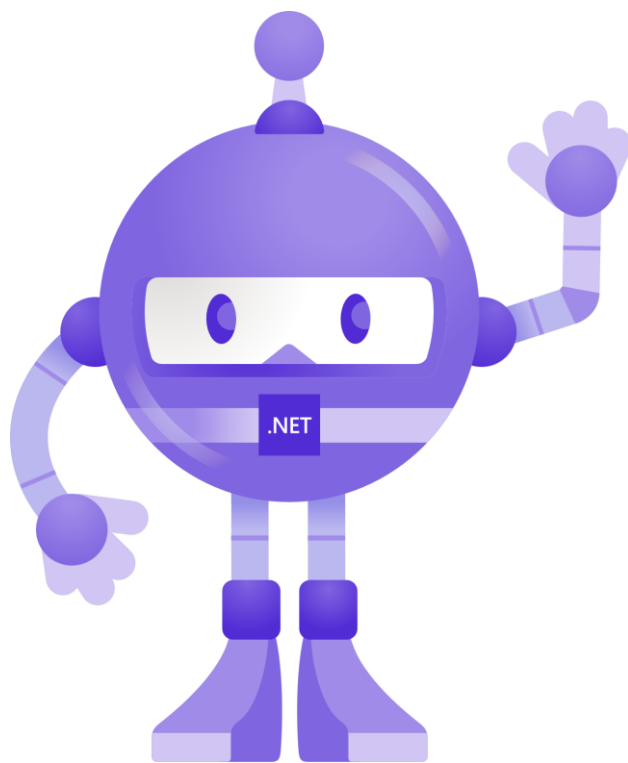Circuit Breakers

Auth(entication|orization)

Service Discovery

Message Bus

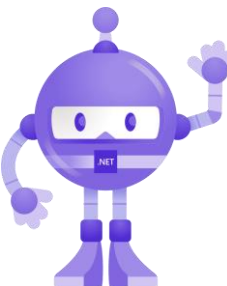# Meet,

steeltoe®

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What is Steeltoe?

Created in 2015, Steeltoe is an **open source** project that enables .NET developers to build resilient, best practice microservices for the cloud.

Steeltoe's many **purpose-built features** make it easy to build and run both ASP.NET **Framework** as well as ASP.NET **Core** microservices in production at scale.
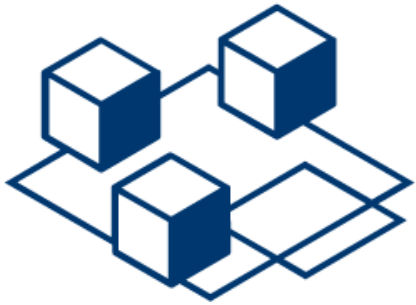
Does Steeltoe replace .NET?

No Way!

Steeltoe **adds to .NET's cloud opinions** with **ready-to-run patterns** like distributed tracing, discovery, external configuration, management, and circuit-breaking.

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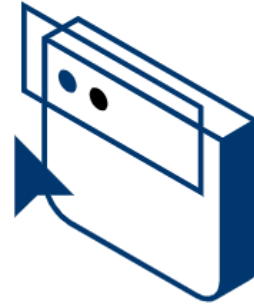# Code for the business, not the platform.

Microservices

Quickly deliver production-grade features that are independently evolvable.
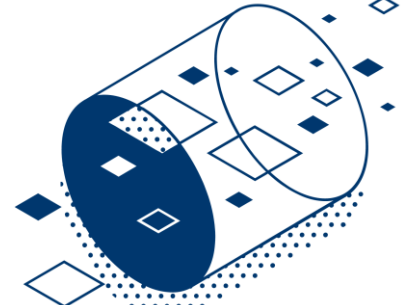
Cloud

Your code, on any cloud. Connect and scale your services, whatever the platform.

Webapps

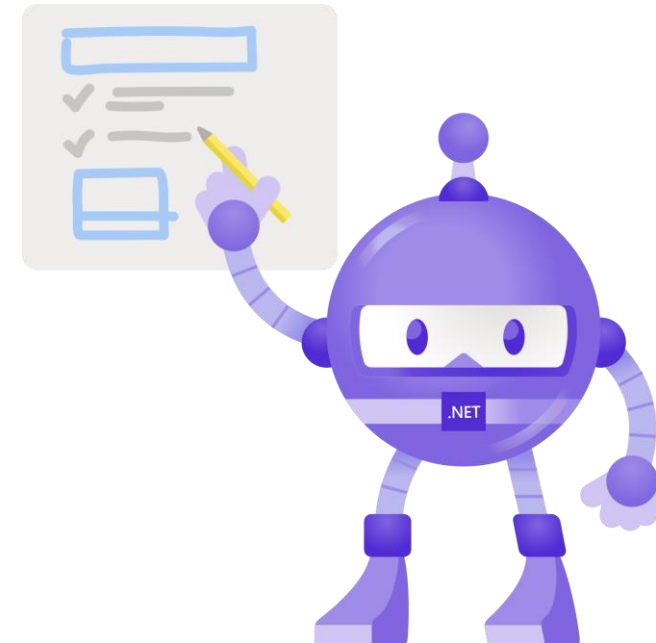A framework for fast, secure, and responsive ASP.NET web applications.

Event Driven

Integrate with your enterprise. React to business events. Act on your streaming data in real-time.

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https://steeltoe.io

Demo: Adding Steeltoe to webapi

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Get started with Steeltoe today!

https://Steeltoe.io

Learn more, step by step guides, documentation

Support

Slack	https://slack.Steeltoe.io
GitHub	https://github.com/steeltoeoss
NuGet	https://nuget.org/profiles/steeltoe