

# Microsoft Tech Summit

Build your skills with the latest in  
cloud technologies



# Microsoft Tech Summit

28 February – 1 March 2018, Trafo Baden



# Developing ASP.NET Core 2 Apps with Azure

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## Jeremy Likness

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<https://aka.ms/advocates>



@azureAdvocates



<https://aka.ms/az-net-docs>



# Agenda

What's New with  
ASP.NET Core 2.0?

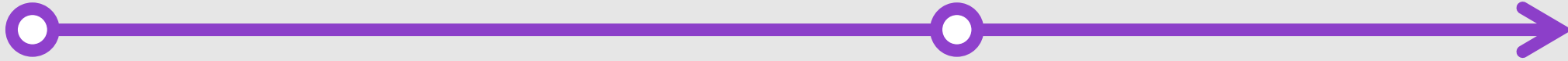
# Agenda

What's New  
with ASP.NET  
Core 2.0?

What about  
the Azure  
cloud?



# .NET Core



.NET Core 1.0

.NET Standard 1.0 – 1.6

ASP.NET Core 1.0

Entity Framework Core 1.0

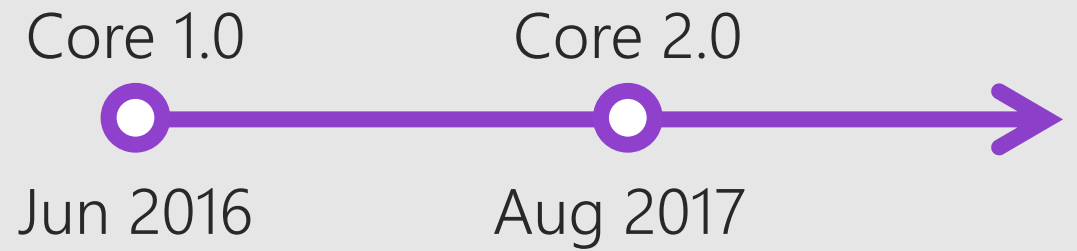
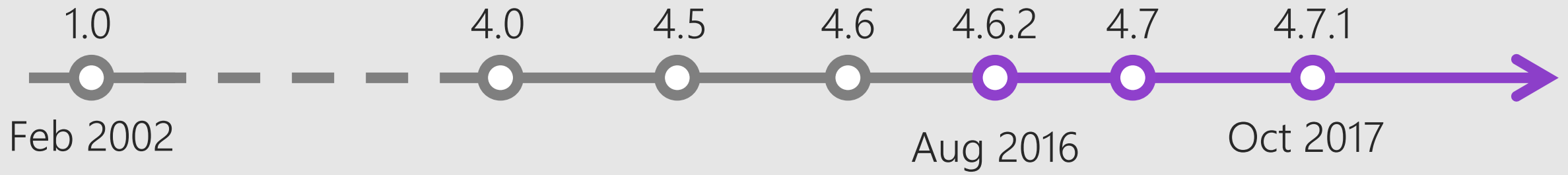
.NET Core 2.0

.NET Standard 2.0

ASP.NET Core 2.0

Entity Framework Core 2.0

# Evolution of .NET





**Jamie Peacock**

@JamiePed



Trying to translate my project to .Net Core is being a huge pain in the bum. I just want to use an appDomain but I can't have one!

7:44 PM - Nov 14, 2016



2



See Jamie Peacock's other Tweets



**Barry Dorrans**

@blowdart



Replying to @dakami

@dakami ah serialisation. Yup, learnt that lesson. No binary serialisers in .net core.

7:41 PM - Mar 29, 2016



1



See Barry Dorrans's other Tweets



**InfoQ** ueue



**Izenda Inc**

@Izenda



Discontinued tech in .NET Core: Changes to Reflection, App Domains, more [hubs.ly/H024XN90](https://hubs.ly/H024XN90) #dotnet

11:17 AM - Feb 12, 2016



1



See Izenda Inc's other Tweets

# .NET Core 2.0 is here!

... and 2.1 is coming soon

<https://aka.ms/core-roadmap>

# More platforms

## Windows

Windows 7  
Windows 8  
Windows 10  
Windows Server 2008  
R2

## macOS

macOS 10.12+ (Sierra)

## Linux

RHEL  
CentOS  
Oracle Linux  
Fedora  
Debian  
Ubuntu  
Linux Mint  
openSUSE  
SLES

# Choice of tools



Visual Studio



# Choice of tools



Visual Studio



Visual Studio Code

# Choice of tools



Visual Studio



Visual Studio Code



Visual Studio for Mac

<https://aka.ms/sterling>



**Tim Heuer**

@timheuer

Follow

Wondering when [@jeremylikness](#) will publish his .NET core (or portable) library for Sterling. LINQ over Windows.Storage pls :-)

5:51 PM - 20 Sep 2011

2 Retweets



3



2



**Jeremy Likness** ⚡ @jeremylikness · 22 Aug 2017

Replying to [@timheuer](#)

How about today?



**JeremyLikness/sterling-net-core**

sterling-net-core - This is a port of the Sterling Open Source NoSQL database to .NET Standard 2.0.

[github.com](https://github.com)



1



3



**Jared** @jaredmroberts · 24 Aug 2017

waiting 6 years to write that ;)



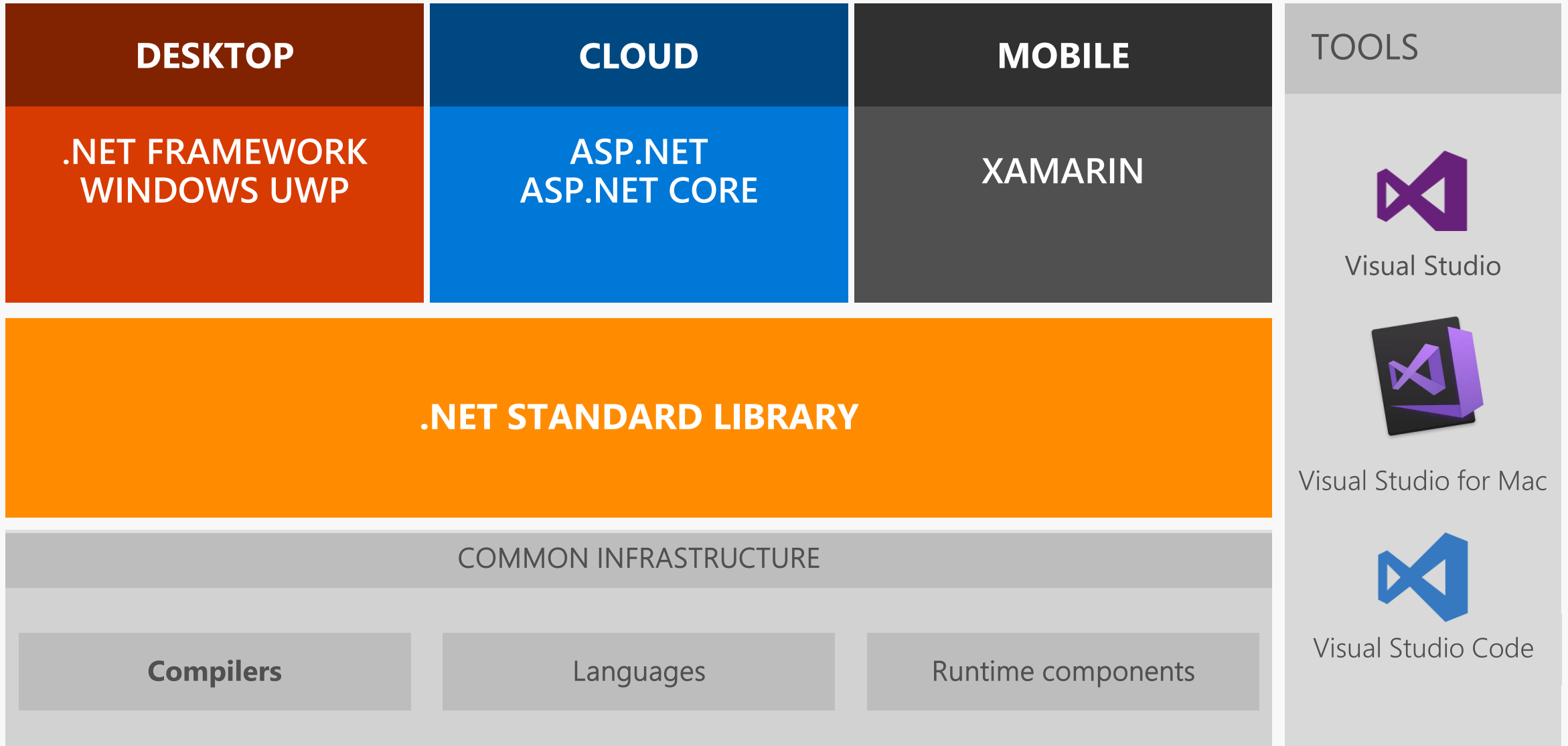
1

.NET Standard 2.0 is here!

# Quick note...

- .NET Standard is the **interface**
- .NET Core 2.0 is one of many **implementations**

# .NET platform today





# .NET Standard 1.0



.NET Core 1.0

.NET Framework 4.5

Mono 4.6

Xamarin.iOS 10.0

Xamarin.mac 3.0

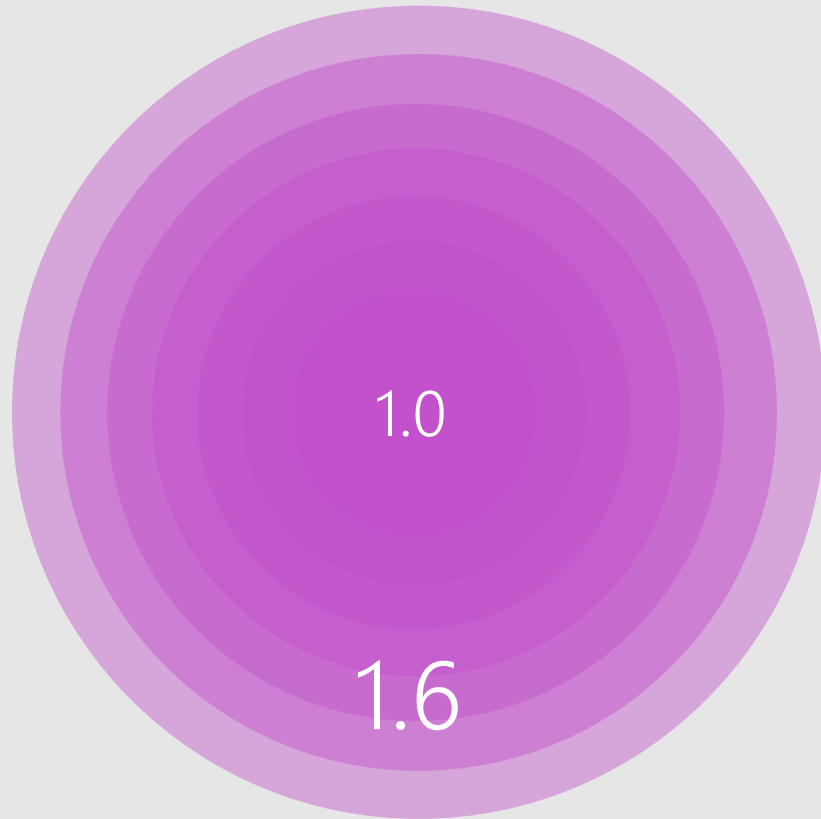
Xamarin.Android 7.0

UWP 10.0

Windows 8.0

Windows Phone 8.0

# .NET Standard 1.6



.NET Core 1.0

.NET Framework ~~4.5~~ 4.6.1

Mono 4.6

Xamarin.iOS 10.0

Xamarin.mac 3.0

Xamarin.Android 7.0

UWP ~~10.0~~ 10.0.16299

~~Windows 8.0~~

~~Windows Phone 8.0~~

# .NET Standard 2.0

1.6

2.0

.NET Core ~~1.0~~ 2.0

.NET Framework 4.6.1

Mono ~~4.6~~ 5.4

Xamarin.iOS ~~10.0~~ 10.14

Xamarin.mac ~~3.0~~ 3.8

Xamarin.Android ~~7.0~~ 8.0

UWP 10.0.16299

20,000 new APIs!

# APIs in .NET Standard 2.0

## DATA

DataSet • DataTable • SQLClient

## XML

XLinq • XML Document • XPath • Schema • XSL

## SERIALIZATION

BinaryFormatter • Data Contract • XML

## NETWORKING

Sockets • HTTP • Mail • WebSockets

## IO

Files • Compression • MMF

## THREADING

Threads • Thread Pool • Tasks

## CORE

Primitives • Collections • Reflection • Interop • Linq

# .NET Standard 2 is more compatible

## .NET Framework compatibility shim

- Reference existing .NET Framework assemblies
- No recompilation required

## Windows Compatibility Pack

- NuGet Package Microsoft.Windows.Compatibility
- Adds 20,000 Windows and X-plat APIs

# Quick look at .NET Standard 2.0



ASP.NET Core 2.0 is here!

# Fast



Requests per second - [github.com/aspnet/benchmarks](https://github.com/aspnet/benchmarks)

# Fast



Requests per second - [github.com/aspnet/benchmarks](https://github.com/aspnet/benchmarks)

# Get started easier

WebHost.CreateDefaultBuilder()

Use Kestrel

Use wwwroot  
as content root

Default  
configuration  
and logging

IIS integration

Microsoft.AspNetCore.All metapackage

# Build and runtime optimizations

NuGet fallback  
folder

Runtime store

Razor view  
precompilation

# Razor Pages

Create views  
without  
controllers

PageModel  
"code-behind"

Let's get started with  
ASP.NET Core 2.0!

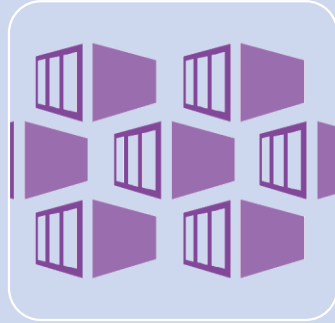
# ASP.NET Core Hosting on Azure



Web Apps



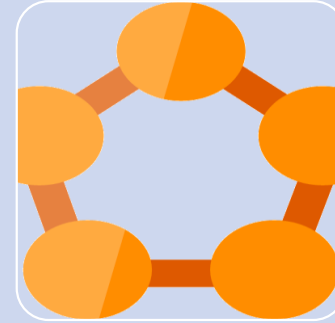
Web Apps  
for  
Containers



Azure  
Container  
Instances



Azure  
Kubernetes  
Service



Service  
Fabric



# ASP.NET Core 2.0 on Azure

Seamless  
diagnostics

Key Vault  
integration

Containers  
everywhere

Visual Studio  
Team Services

# ASP.NET Core – Continuous Delivery

Visual Studio  
Team Services



DevOps  
Project

Let's get started with  
ASP.NET Core 2.0 on Azure!

# Get started with ASP.NET Core 2.0

- Install .NET Core 2.0 SDK from <https://aka.ms/get-core>
- Install Visual Studio from <https://aka.ms/get-visual-studio>

# Additional resources

## Docs

<https://aka.ms/coredocs>

<https://aka.ms/aspcoredocs>

## Code

<https://github.com/dotnet/home>

<https://github.com/aspnet/home>

## Blogs

<https://aka.ms/netblog>

<https://aka.ms/web-dev-blog>

## Community standup

<https://live.asp.net>

## Code conversations

<https://channel9.msdn.com/Shows/Code-Conversations>

# Please Complete your Session Evaluations

## Get your cool IoT Dev Kit!

Fill out your feedback form and turn it in before you leave on day two.

Jeremy Likness  
@JeremyLikness



# Share on Social

## #MSTechSummit



