NET을 위한 플랫폼 간 개발

Jason Beres

SVP, Developer Tools

jasonb@infragistics.com

About Me

Jason Beres

Senior VP, Infragistics Developer Tools

https://infragistics.com

jasonb@Infragistics.com

@jasonberes

@infragistics

- 20 years at Infragistics
- Manage development teams
- Author 10 books / SQL Server, C++, C#, Visual Basic
- Focus on developer + UX productivity, data viz and
- business intelligence solutions @ Infragistics

Infragistics Korea

ESEAsales@infragistics.com
Korea: +81 (50) 1745 6258

Dongsu Jo, APAC Sales Manager

DJo@infragistics.com

Infragistics:

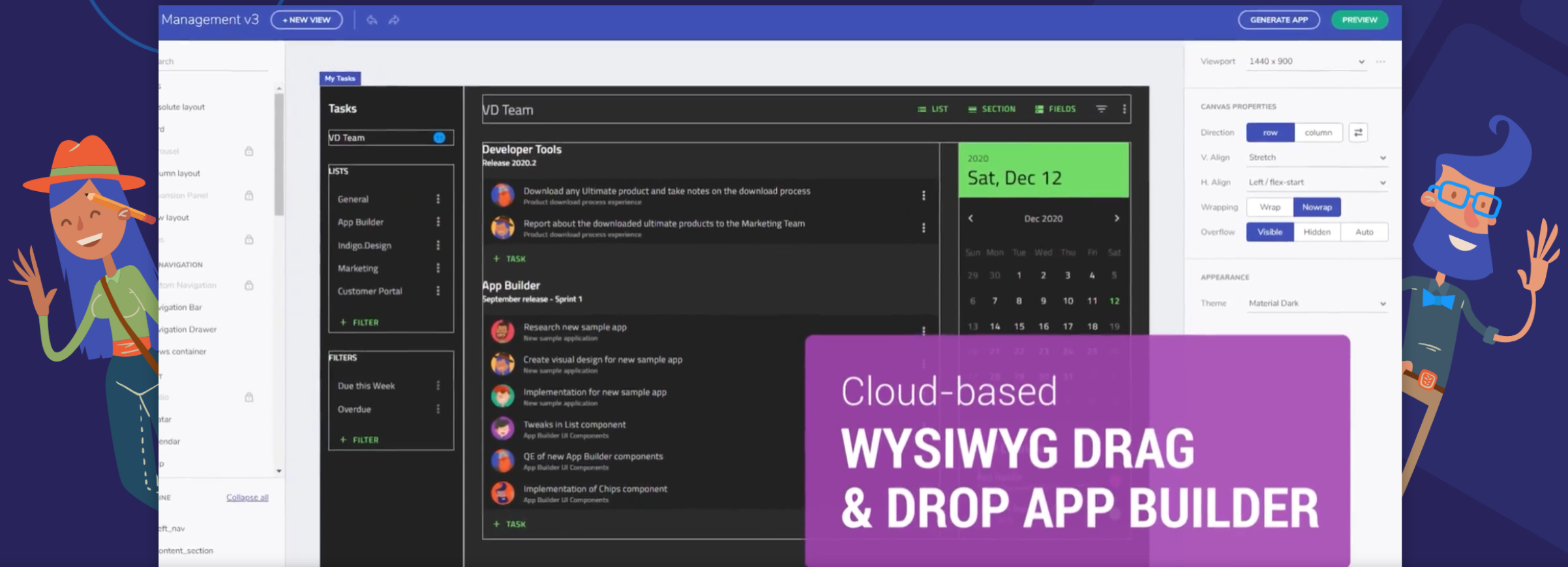
Maker of App Builder for Blazor, Angular & React

Indigo.Design

신속하게 애플리케이션을 디자인/개발하기

완벽한 디자인-코드 솔루션을 갖춘 세계 유일의 디지털 디자인 플랫폼인 Indigo.Design 시리즈인 Indigo.Design App Builder는 새로운 클라우드를 기반으로 한 WYSIWG 드래그 앤 드롭 툴로, 이전보다 더 빠르게 비즈니스 앱을 디자인하고 개발할 수 있도록 도와줄 것입니다.

https://www.infragistics.co.kr/products/indigo-design/app-builder



Ultimate Developer Toolkit for UI

https://www.infragistics.co.kr/products/ultimate

APAC영업팀: APACSales@infragistics.com 한국 연락처 로그인

INFRAGISTICS

디자인 / 개발 UX 비즈니스 인텔리전스 팀 생상성 학습 및 지원 무료 체험판 가격 지원정책

.NET and JavaScript UI Controls

주요 기능 새로운 기능 가격 참조 앱 블로그 자주 묻는 질문들 체험판 다운로드

Infragistics Ultimate

데스크톱, 웹, 모바일에 최적화된 앱을 위한 모든 것

엔터프라이즈급 UI 컴포넌트 및 컨트롤의 라이브러리를 제공하며 **디자인부터 코딩까지 가능한** Infragistics Ultimate를 이용하여 개발 과정을 단순화시키세요. 이를 통해 데스크톱, 웹 또는 모바일을 위한 최신 앱을 신속하게 설계하고 사용자를 위해 높은 수준의 환경을 제공할 수 있습니다.

https://www.infragistics.co.kr/products/ultimate

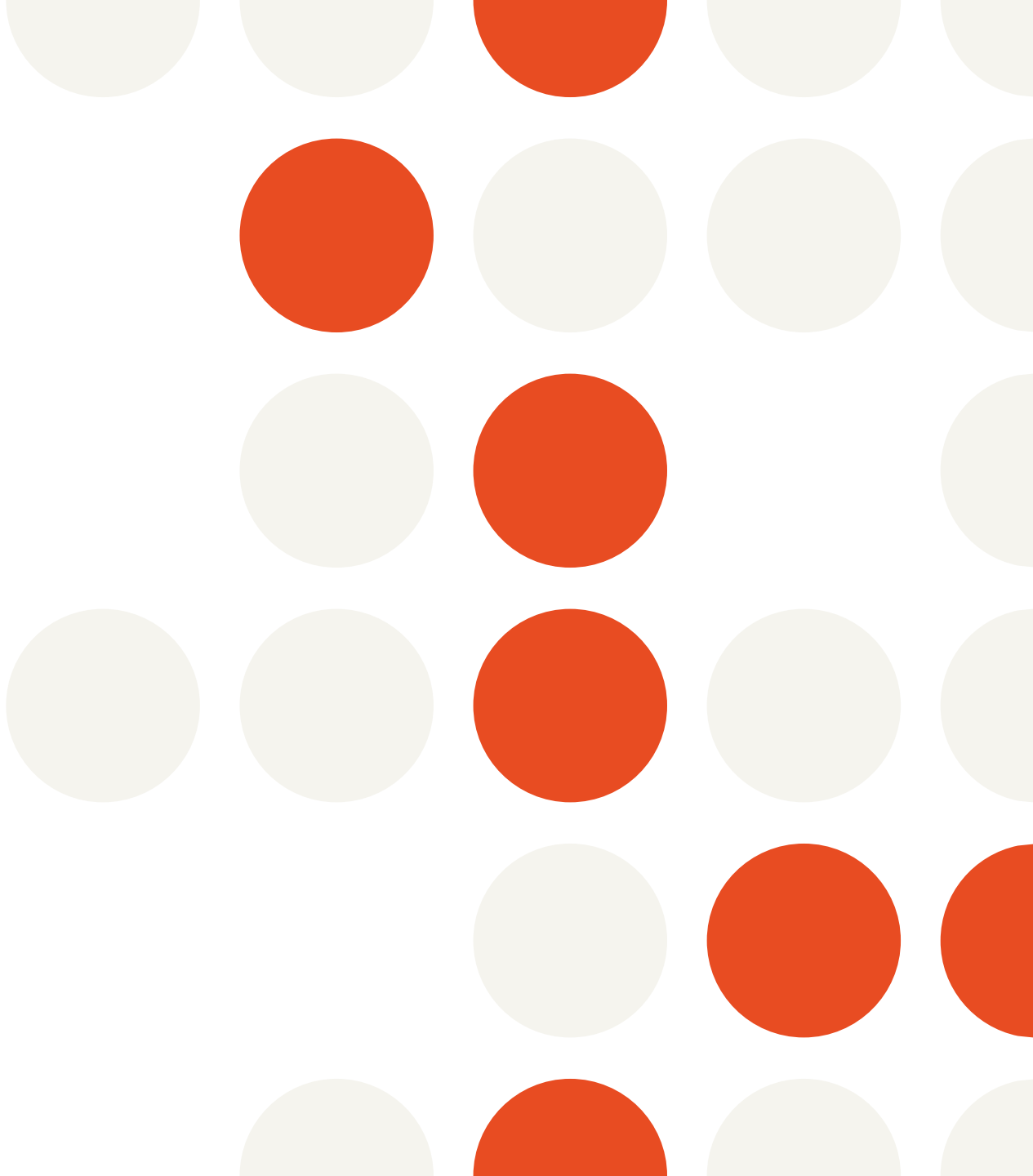
Thank You to .NET Dev Community!

- #1 .NET Community in Korea supporting the spread of education and guidance for all developers on topics of .NET!

Agenda

- Why .NET?
- Cross-Platform Frameworks
  - Maui
  - Uno
  - Blazor-Maui
- Pros & Cons
- Demo!

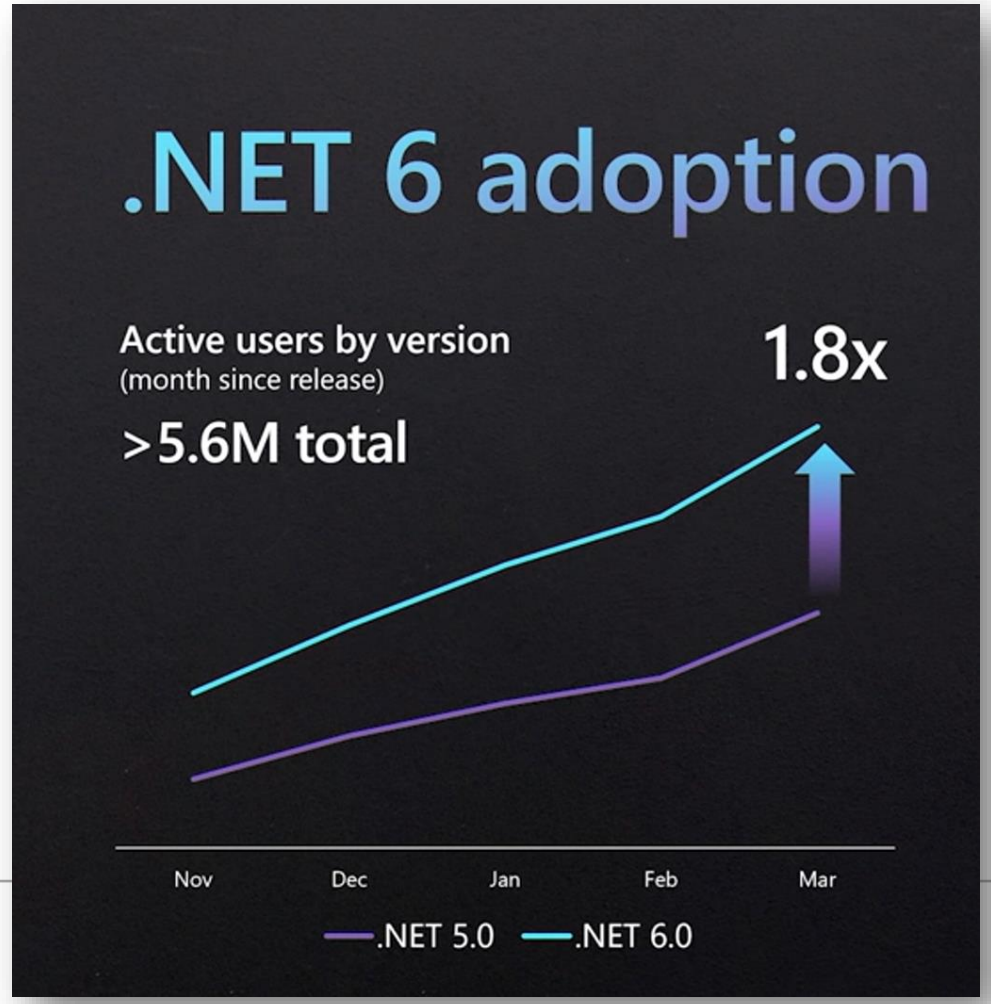
Why .NET?

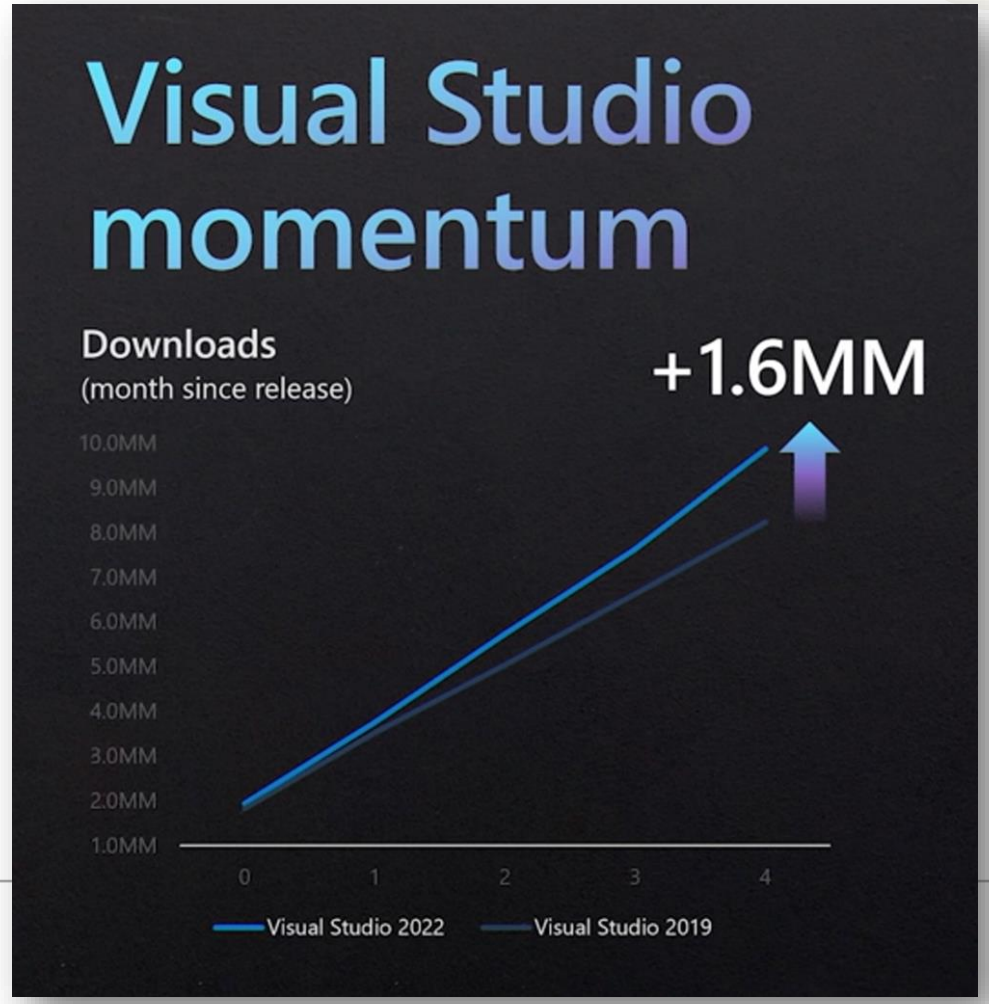


.NET – Most Loved Framework

- .NET is almost 20 years old
- 73% percent of worldwide developers vote as their favorite framework
- Supports C#, C++, F#, and more programming languages that are used across all Microsoft products
- 1 of every 3 developers use C#

Continuing to Grow After 20 Years





.NET Everywhere Is You Need It

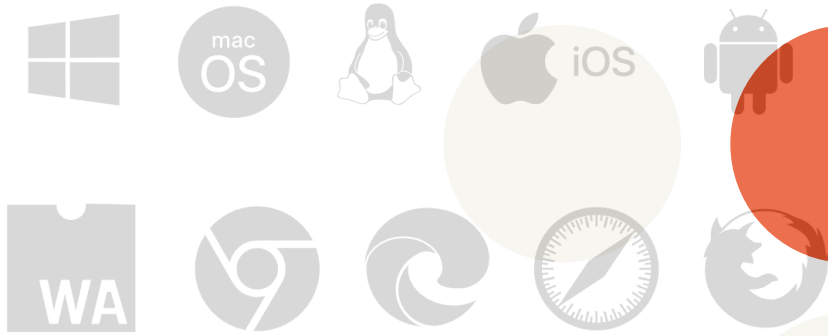
Importance of Considering Multi-Experience

Building for Windows-Only No Longer an Option for Developers

>1B Windows 10 & 11 devices worldwide

>4B iPhone & Android devices worldwide

>5B Active Daily Internet Users



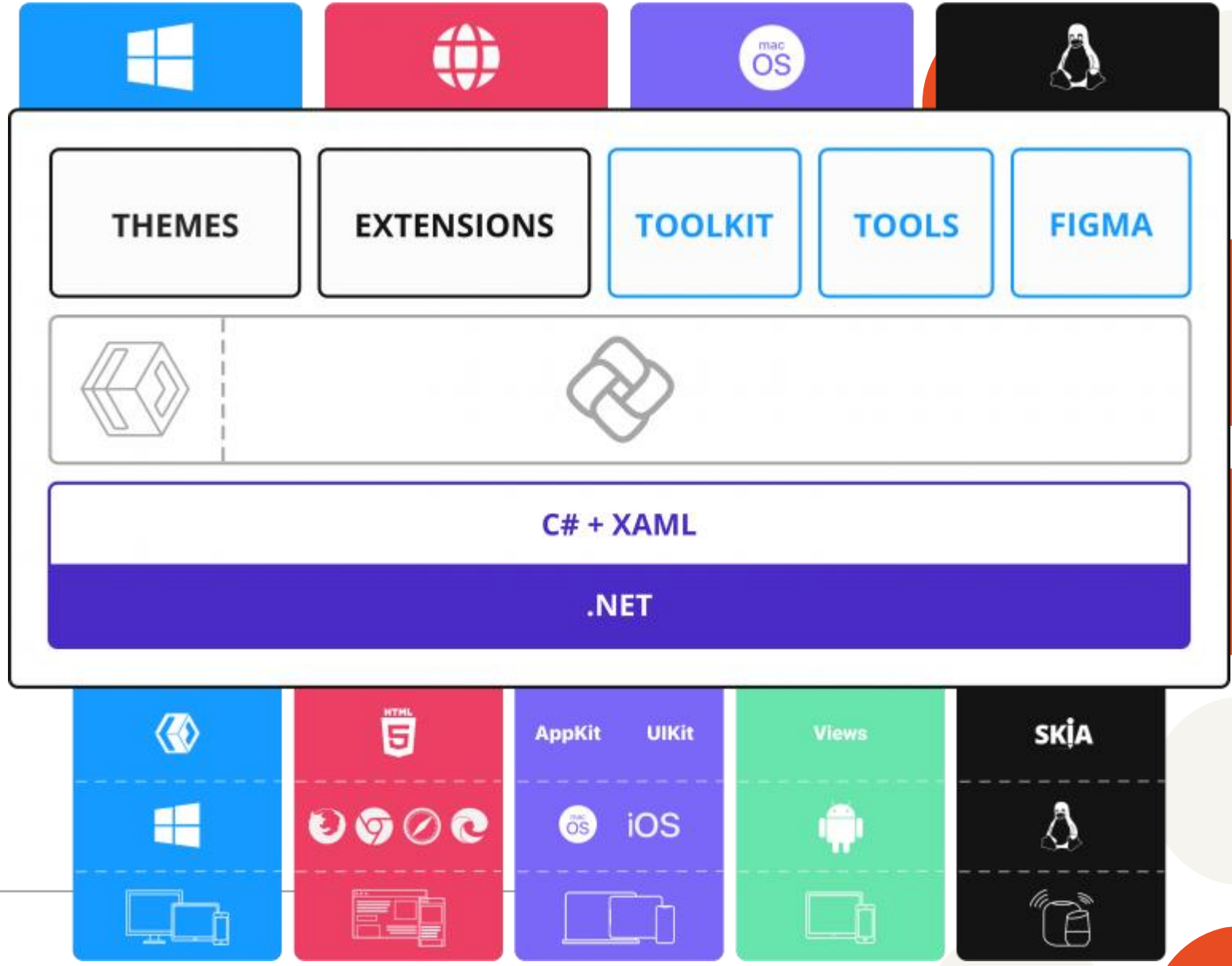
Cross-Platform Options for .NET Developers

Option: UNO Platform

- Runs a single codebase, C# and XAML apps on iOS, Android, macOS, Linux, Web & Windows
- Native Performance on iOS, macOS and Android
- No Dependency on Xamarin.Forms
- Web Applications run in all Browsers via WebAssembly

Uno in Practice

- Mature, OSS (Apache 2.0) License
- Target All Operating Systems & Browsers
- Use editors like Visual Studio, Visual Studio Code or Rider

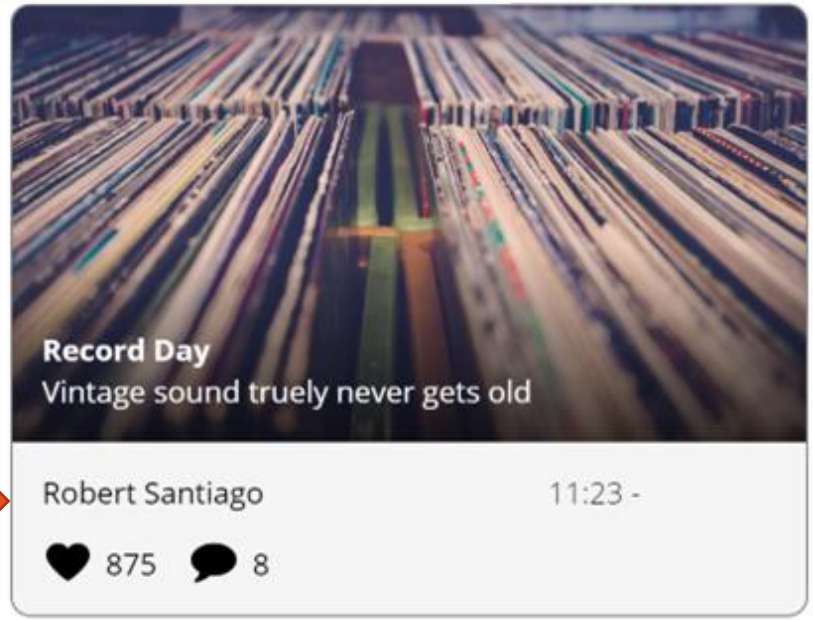


XAML You Know and Love

XAML Data

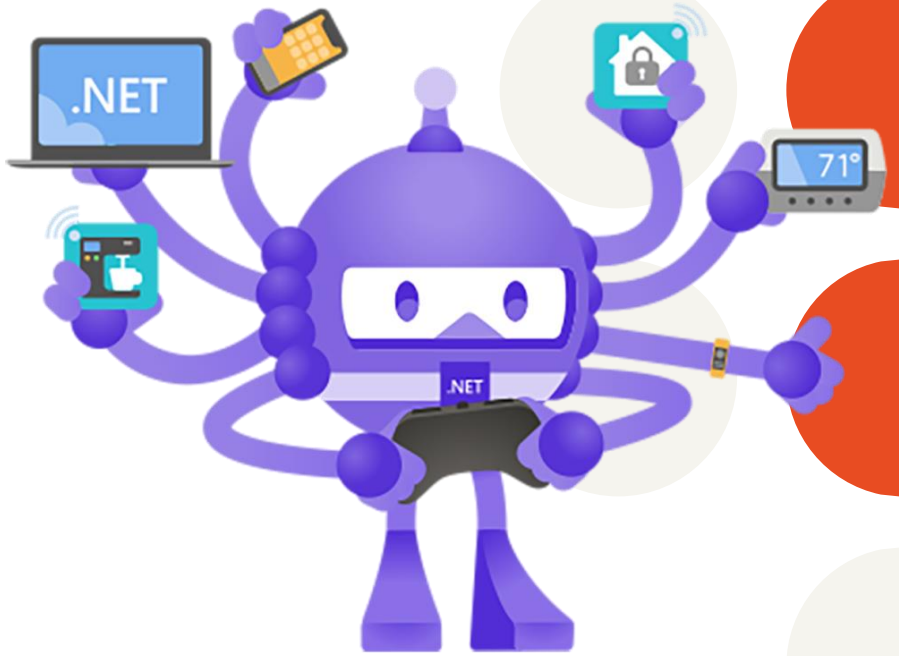
```
<ListView IsItemClickEnabled="True"
          ItemsSource="{Binding Posts}"
          SelectionMode="None"
          HorizontalAlignment="Stretch"
          HorizontalContentAlignment="Stretch"
          x:Name="MasterListView"
          ItemClick="MasterListView_ItemClick">
    <ListView.ItemTemplate>
        <DataTemplate>
            <StackPanel CornerRadius="10"
                        Margin="10"
                        Background="WhiteSmoke"
                        BorderThickness="1"
                        BorderBrush="Gray">
                <Grid Height="220"
                      Width="400"
                      HorizontalAlignment="Stretch">
                    <Image Source="{Binding photoSource}"
                           VerticalAlignment="Center"
                           Stretch="UniformToFill" />
                    <Border Height="100"
                            VerticalAlignment="Bottom">
                        <Border.Background>
                            <LinearGradientBrush StartPoint="0.5
```

https://platform.uno/code-samples



Option: .NET MAUI

- .NET Multi-Platform App UI
- Build native apps on Windows with WinUI, Mac Catalyst for macOS, and iOS & Android with C# and XAML
- .NET MAUI abstracts all those frameworks into a single framework built on .NET 6
- Single base class library and unified type system with CLI support



.NET MAUI in Practice

Unified .NET

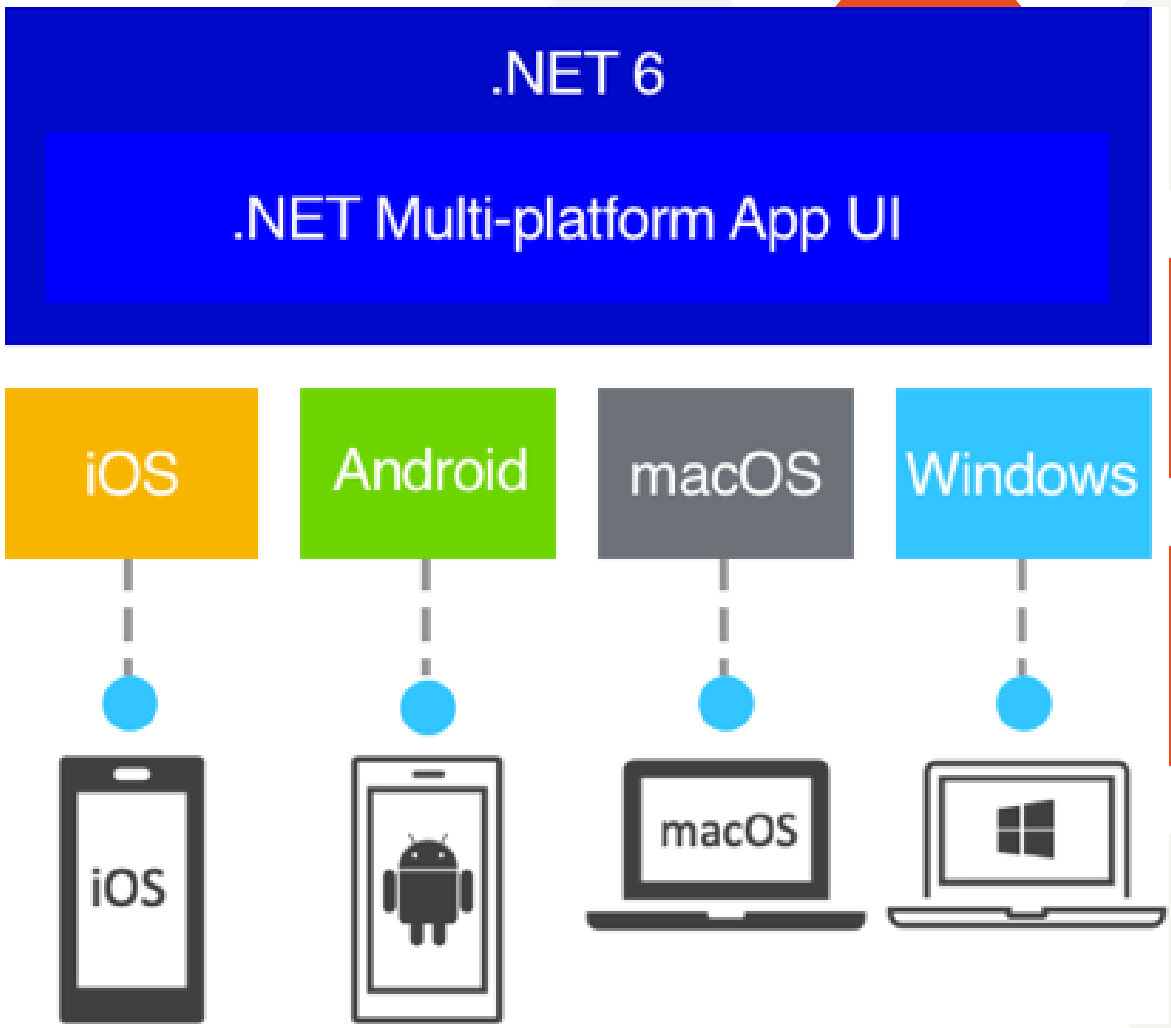
- One Base Class Library
- Type Unification
- CLI Support
- SDK Style Projects
- Modern Support Lifecycle

Mobile, desktop, hybrid

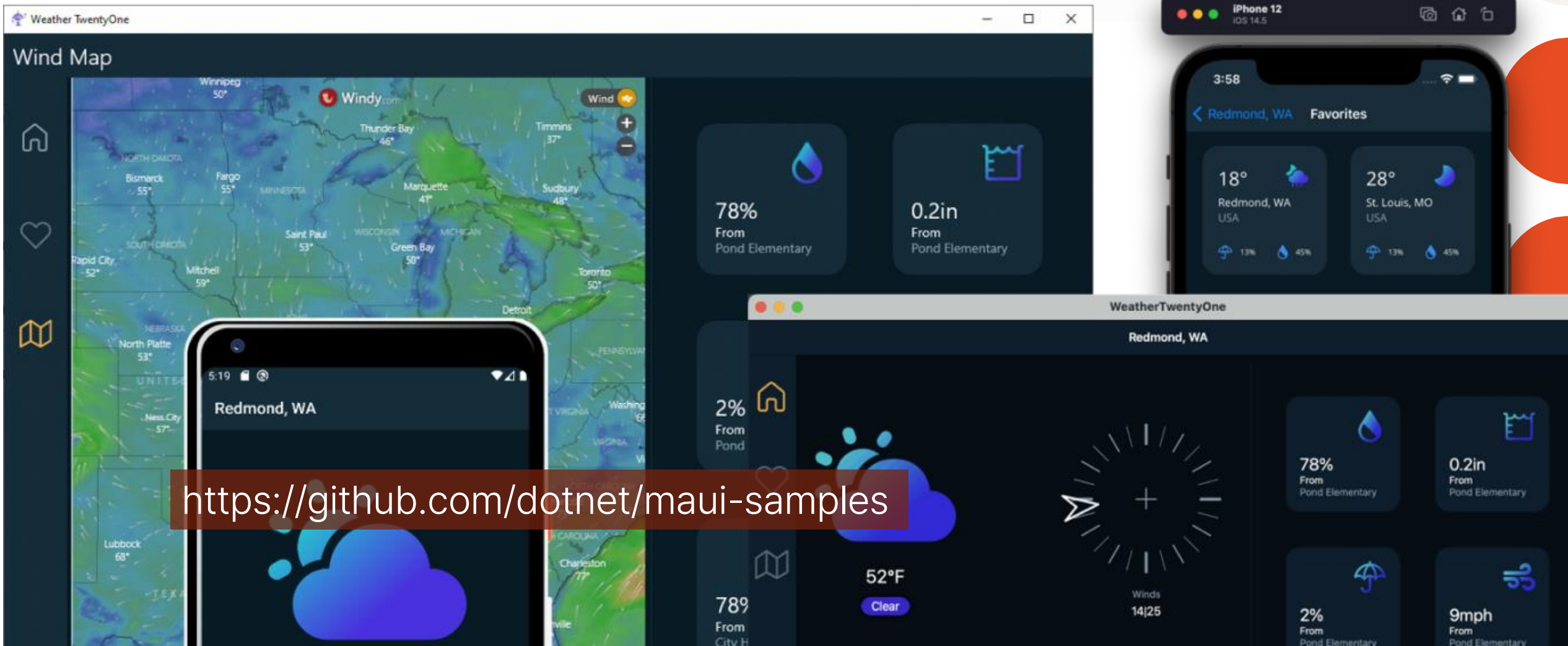
- Android
- iOS
- WinUI
- Mac Catalyst
- Blazor WebView

Productive development

- Single Project
- Microsoft.Extensions
- .NET Hot Reload
- XAML Hot Reload
- Visual Diagnostics



Pixel-Perfect, Multi-Experience

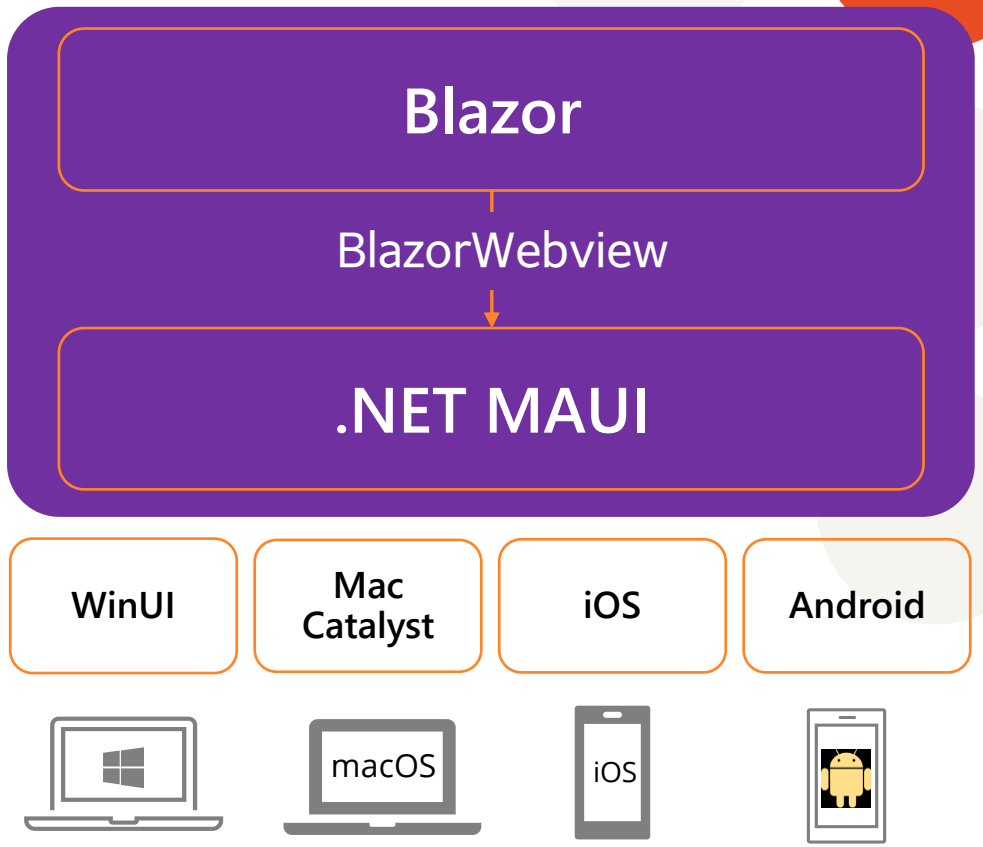


Option: Blazor Hybrid

- Use Blazor Hybrid to blend desktop and mobile native client frameworks with .NET and Blazor
- Razor components run **natively** on the device. Components render to an embedded Web View (BlazorWebView Component)
- Components have full access to the native capabilities of the device through the .NET platform

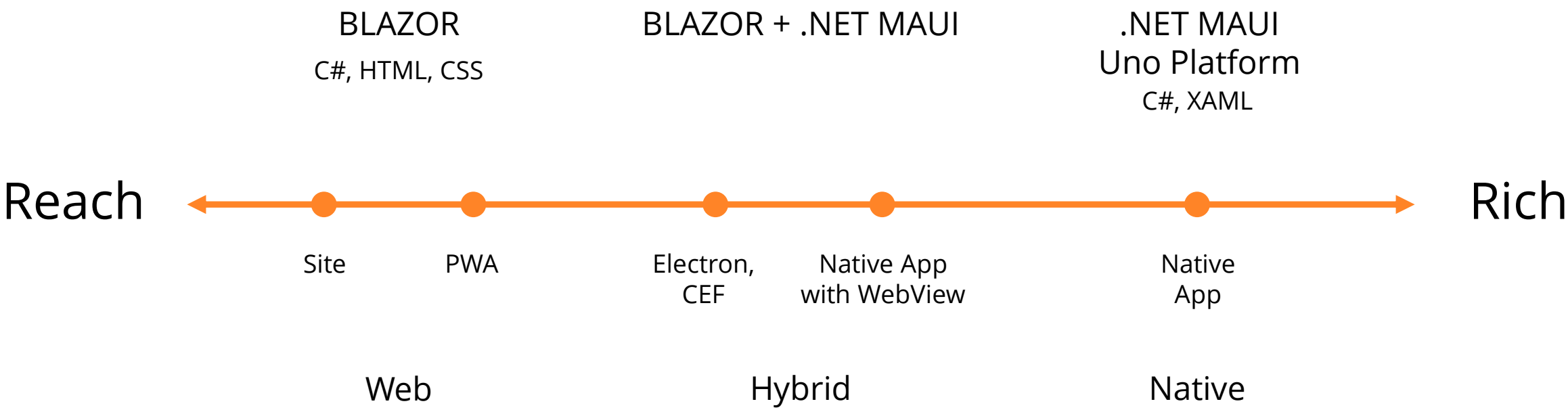
Blazor Hybrid – Best of Both Worlds?

- Use existing Blazor & C# skills to access device specific features
- Native App Container + Embedded Controls
- Built on .NET MAUI

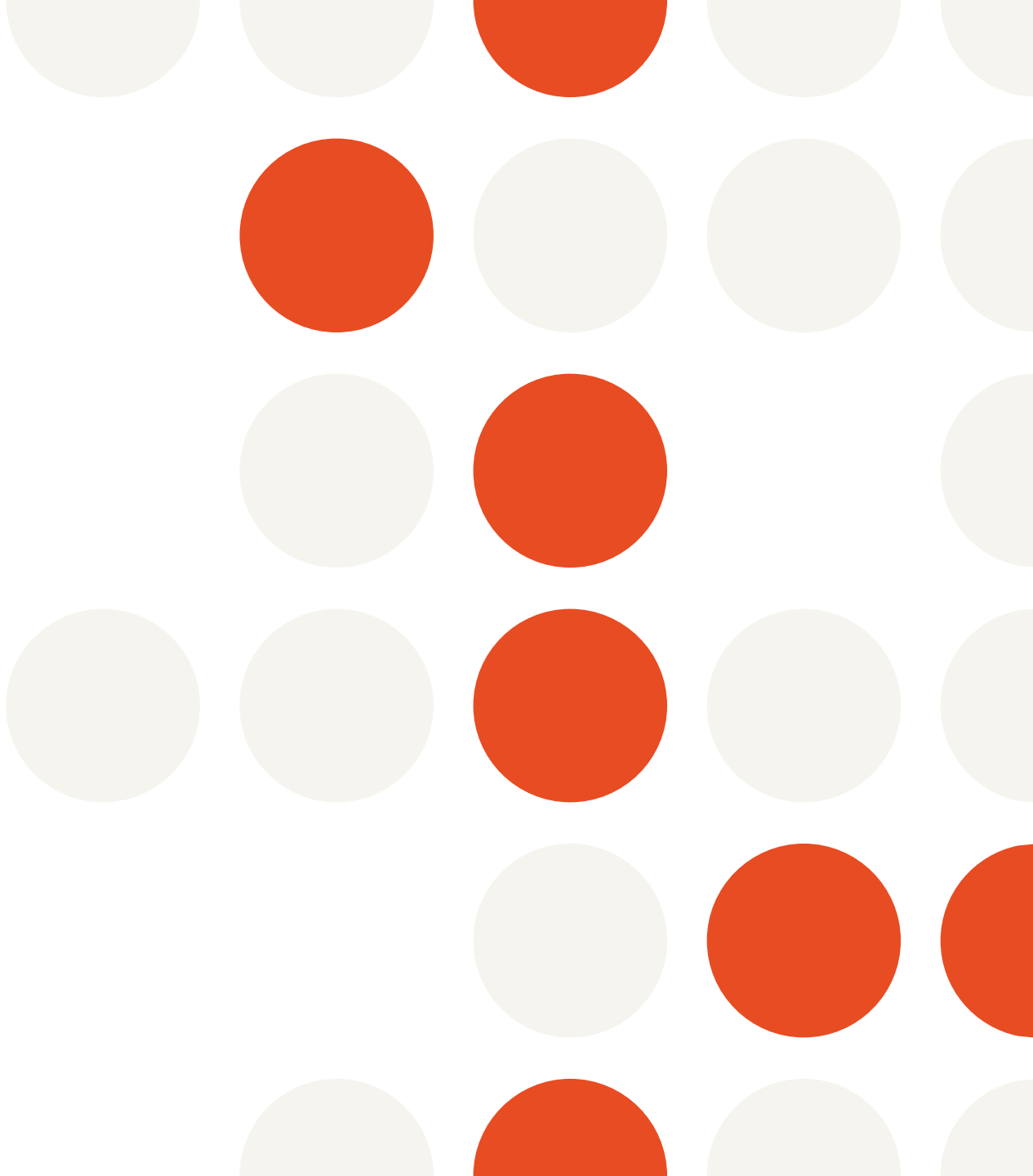


Which is Platform Approach is Best?

Platform – Reach vs. Rich

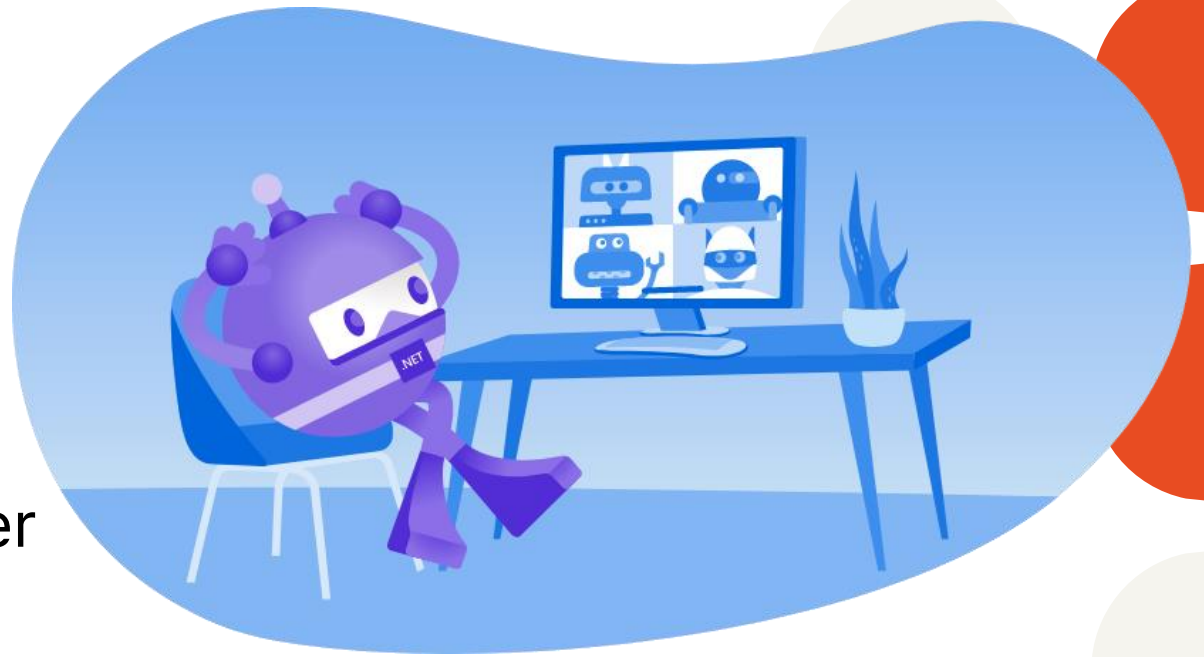


Demo



Summary

- Developers should consider multi-experience platforms if needed
- MAUI / Blazor are less mature than Uno Platform, but supported by Microsoft
- No matter - .NET Ecosystem is healthy, developers have great options no matter what platforms they are trying to target



Thank You!

Jason Beres

Senior VP, Infragistics Developer Tools

https://infragistics.com

jasonb@Infragistics.com

@jasonberes

@infragistics

ESEAsales@infragistics.com

Korea: +81 (50) 1745 6258

Dongsu Jo, APAC Sales Manager

DJo@infragistics.com

Ultimate Developer Toolkit for UI

https://www.infragistics.co.kr/products/ultimate

APAC영업팀: APACSales@infragistics.com 한국 연락처 로그인

INFRAGISTICS

디자인 / 개발 UX 비즈니스 인텔리전스 팀 생상성 학습 및 지원 무료 체험판 가격 지원정책

.NET and JavaScript UI Controls

주요 기능 새로운 기능 가격 참조 앱 블로그 자주 묻는 질문들 체험판 다운로드

Infragistics Ultimate

데스크톱, 웹, 모바일에 최적화된 앱을 위한 모든 것

엔터프라이즈급 UI 컴포넌트 및 컨트롤의 라이브러리를 제공하며 **디자인부터 코딩까지 가능한** Infragistics Ultimate를 이용하여 개발 과정을 단순화시키세요. 이를 통해 데스크톱, 웹 또는 모바일을 위한 최신 앱을 신속하게 설계하고 사용자를 위해 높은 수준의 환경을 제공할 수 있습니다.

https://www.infragistics.co.kr/products/ultimate