



ARGOMENTO

# Microsoft Connect();

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Tutte le novità

# #meetMicrosoft #cloudgenBot @cloudgen\_verona

## Microsoft Connect(); 2018

Build the apps of tomorrow, today.





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andreatosato



andrea.tosato

- Visual Studio 2019
  - C# 8
- Live Share
- Visual Studio Intellicode
- News, News, News



# Demo

## C# 8 - .NET Core 3

# Interface breaking changes



```
interface ILogger
{
    void Log(LogLevel level, string message);
    void Log(Exception ex) => Log(LogLevel.Error, ex.ToString());
// New overload
}

class ConsoleLogger : ILogger
{
    public void Log(LogLevel level, string message) { ... }
    // Log(Exception) gets default implementation
}
```

# System.Buffers.SequenceReader



```
private static ReadOnlySpan<byte> CRLF => new byte[] { (byte)'\r', (byte)'\n' };

public static void ReadLines(ReadOnlySequence<byte> sequence)
{
    SequenceReader<byte> reader = new SequenceReader<byte>(sequence);

    while (!reader.End)
    {
        if (!reader.TryReadToAny(out ReadOnlySpan<byte> line, CRLF, advancePastDelimiter:false))
        {
            // Couldn't find another delimiter
            // ...
        }

        if (!reader.IsNext(CRLF, advancePast: true))
        {
            // Not a good CR/LF pair
            // ...
        }

        // line is valid, process
        ProcessLine(line);
    }
}
```

This allows easy, high performance, low allocation parsing of System.IO.Pipelines data that can cross multiple backing buffers

# .NET Core support



.NET Core 3 will be supported on the following operating systems:

Windows Client: 7, 8.1, 10 (1607+)

Windows Server: 20012 R2 SP1+

macOS: 10.12+

RHEL: 6+

Fedora: 26+

Ubuntu: 16.04+

Debian: 9+

SLES: 12+

openSUSE: 42.3+

Alpine: 3.8+

Chip support follows:

x64 on Windows, macOS, and Linux

x86 on Windows

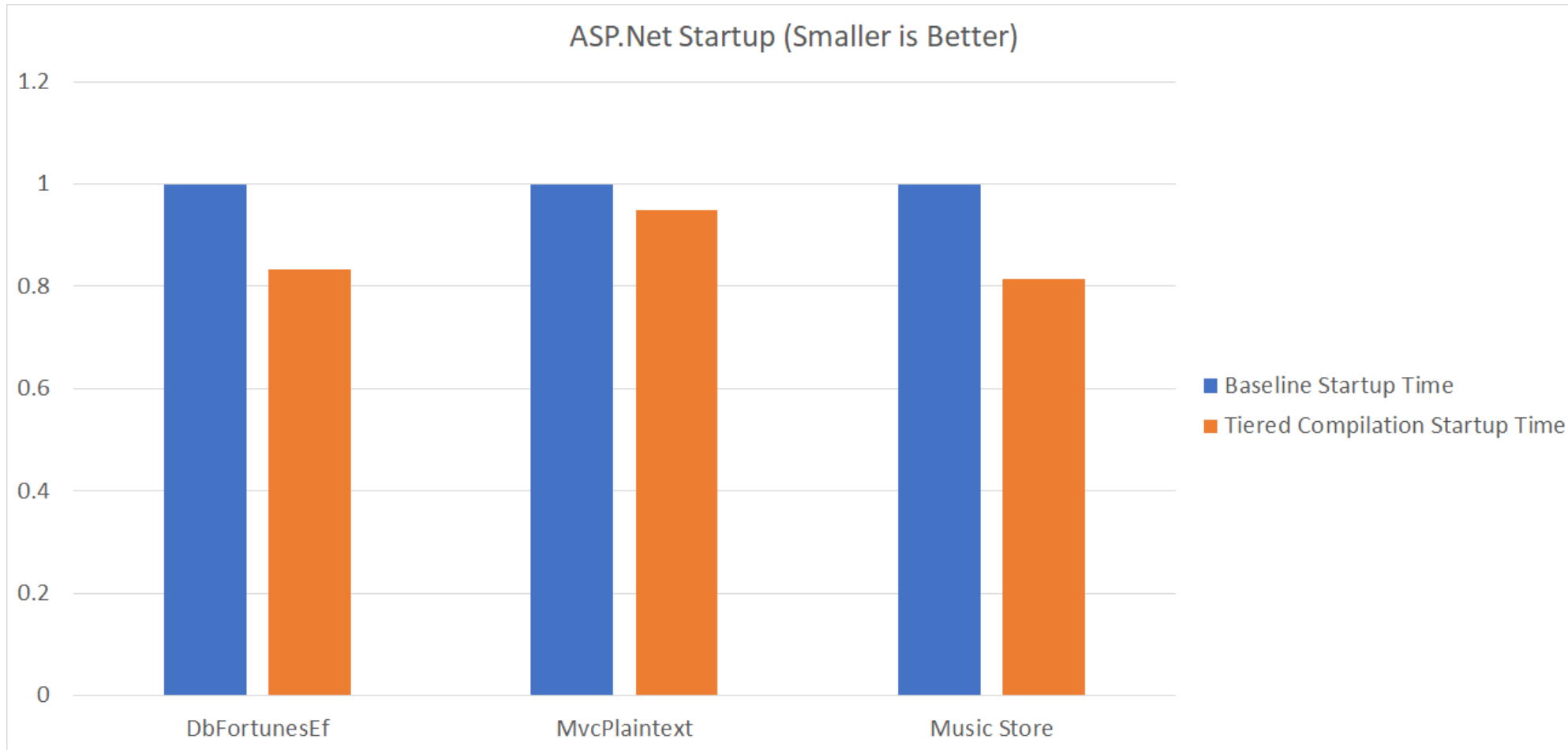
ARM32 on Windows (coming with preview 2) and Linux

ARM64 on Linux

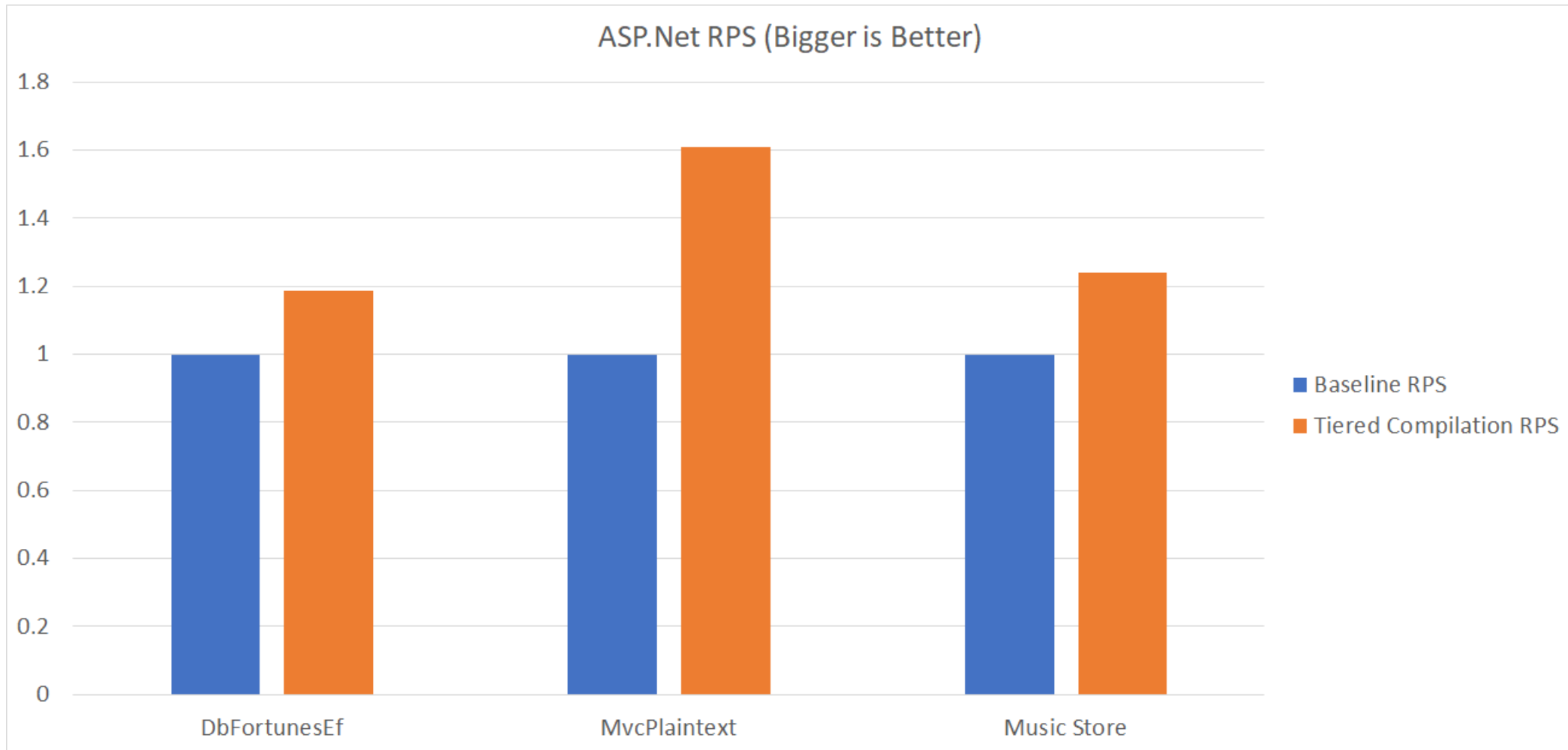
For Linux, ARM32 is supported on Debian 9+ and Ubuntu 16.04+. For ARM64, it is the same with the addition of Alpine 3.8. These are the same versions of those distros as is supported for X64. We made a conscious decision to make supported platforms as similar as possible between X64, ARM32 and ARM64.



# Tiered Compilation



# Tiered Compilation



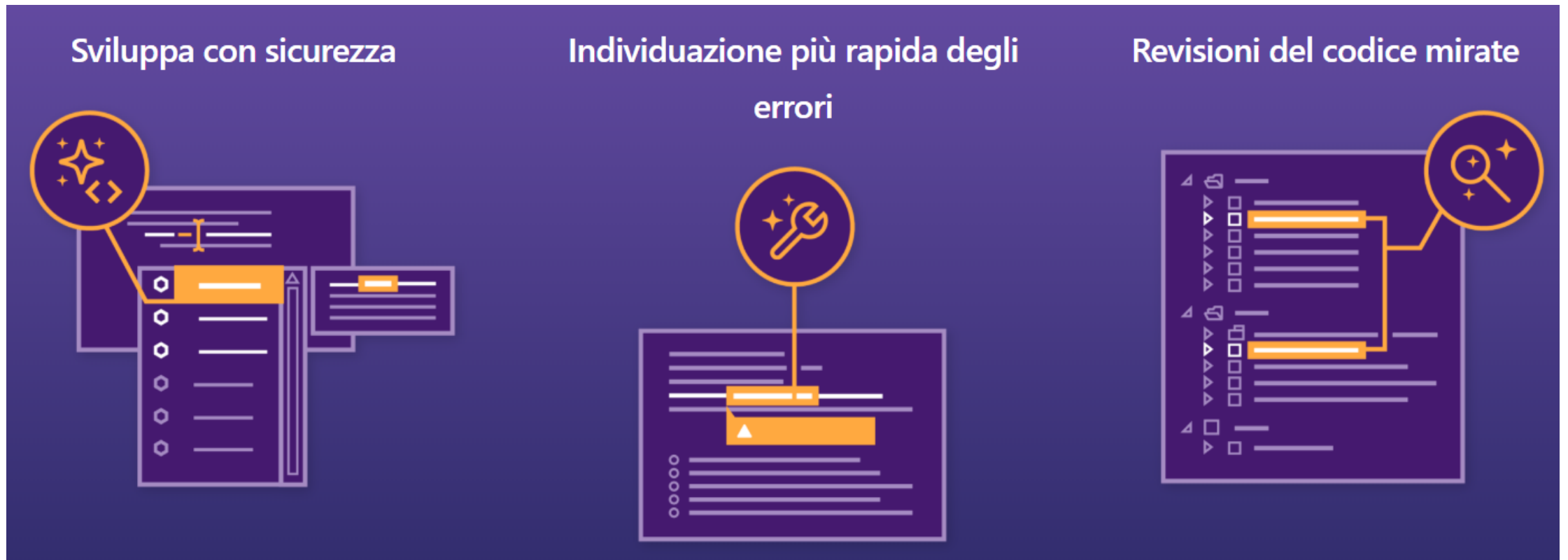
<https://visualstudio.microsoft.com/it/services/live-share/>

## ▲ GUESTBOOK

- .vscode
- build
- node\_modules
- public
- src
  - components
    - Grid
      - arrow.png
      - JS GridArrow.js
      - JS GuestbookGrid.js
      - JS GuestbookGridCell.js
      - logo.svg
  - Map

```
1 import GridArrow from "../GridArrow";
2 import GuestbookGridCell from "../GuestbookGridCell";
3 import React from "react";
4
5 export default function GuestbookGrid({ signatures }) {
6   const cells = signatures.map(({ signature: PJ Meyer
7     <GuestbookGridCell signature={signature} key={signature} />
8   ));
9   Amanda Silver
10  return (
11    <GridContainer>
12      <Grid>{cells}</Grid>
13      <GridArrow />
14    </GridContainer>
15  );
16 }
17
```

<https://visualstudio.microsoft.com/it/services/intellicode/>





- EF Core 2.2 - EF Core 3.0
- Xamarin Forms 3.5 - 4
- Container LUIS
- Azure AKS
- Azure Functions



<https://blogs.msdn.microsoft.com/dotnet/2018/12/04/announcing-entity-framework-core-2-2/>

<https://blogs.msdn.microsoft.com/dotnet/2018/10/17/announcing-entity-framework-core-2-2-preview-3/>



```
public class Friend
{
    [Key]
    public string Name { get; set; }
    [Required]
    public Point Location { get; set; }
}
```



```
using (var context = new MyDbContext())
{
    context.Add(
        new Friend {
            Name = "Bill",
            Location = new Point(-122.34877, 47.6233355) {SRID = 4326 }
        });
    context.SaveChanges();
}
```

<https://docs.microsoft.com/it-it/ef/core/modeling/spatial>





```
var nearestFriends =  
(from f in context.Friends orderby  
f.Location.Distance(myLocation) descending  
select f)  
.Take(5).ToList();
```

<https://docs.microsoft.com/it-it/ef/core/modeling/spatial>

EF Core 2.0 → one-to-one associations.

EF Core 2.2 → one-to-many associations.

```
modelBuilder.Entity<Customer>()  
    .OwnsMany(c => c.Addresses);
```



```
var nearestFriends = (from f in  
context.Friends.TagWith(@"This is my spatial  
query!") orderby f.Location.Distance(myLocation)  
descending select f).Take(5).ToList();
```

-- This is my spatial query!

```
SELECT TOP(@__p_1) [f].[Name], [f].[Location]  
FROM [Friends] AS [f]  
ORDER BY [f].[Location].STDistance(@__myLocation_0) DESC
```



- **LINQ improvements**
- **Cosmos DB support**
- **C# 8.0 support**
- **Reverse engineering database views into query types**
- **Property bag entities**
- **EF 6.3 on .NET Core**
  - we will be adapting the next version of EF 6 to run on .NET Core 3.0. We are doing this to facilitate porting existing applications with minimal changes.  
**WITH SOME LIMITATIONS**

<https://developer.xamarin.com/releases/xamarin-forms/xamarin-forms-3.4/3.4.0/>

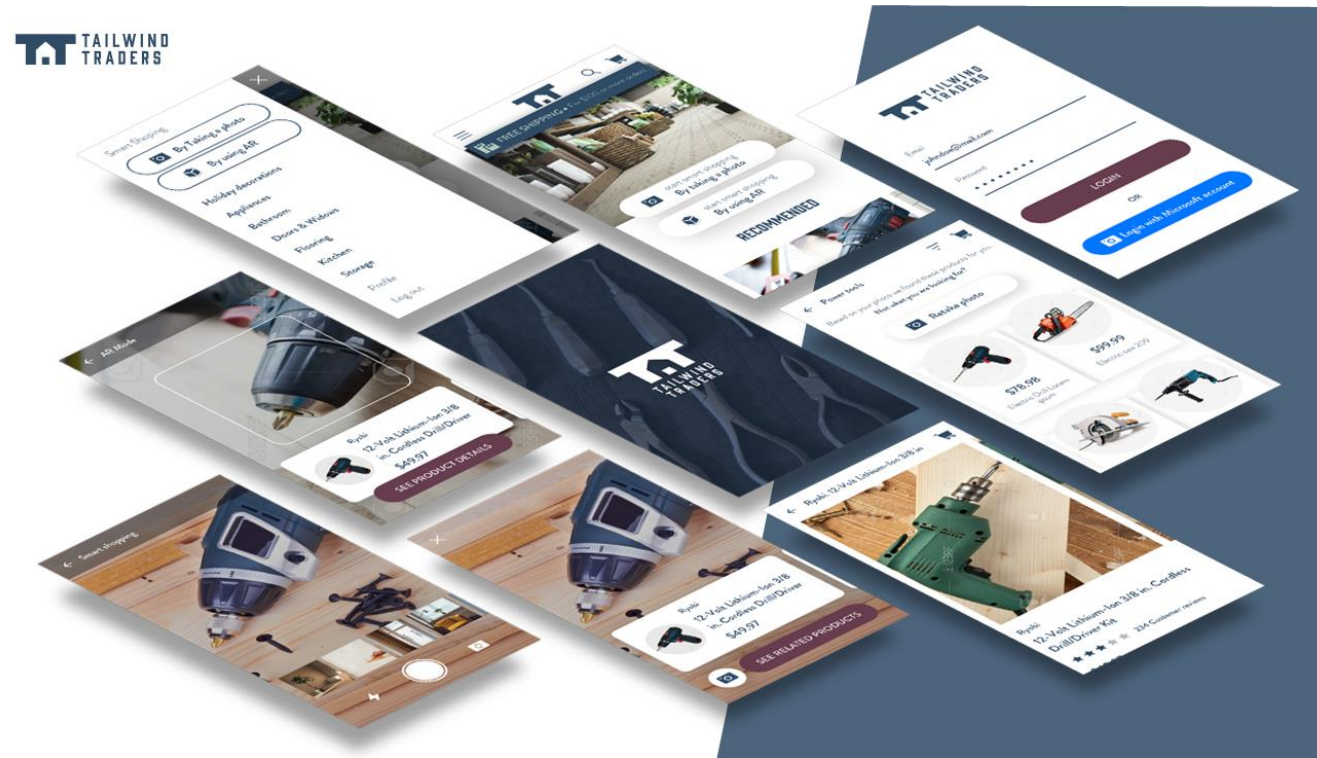
Xamarin.Forms 3.4 has debuted, bringing you the all-new ImageButton control, new tab index accessibility features, plus 40 more improvements. You have told us loud and clear that you want more powerful UI controls and easier access to customize your native, cross-platform mobile apps



# Xamarin.Forms 4

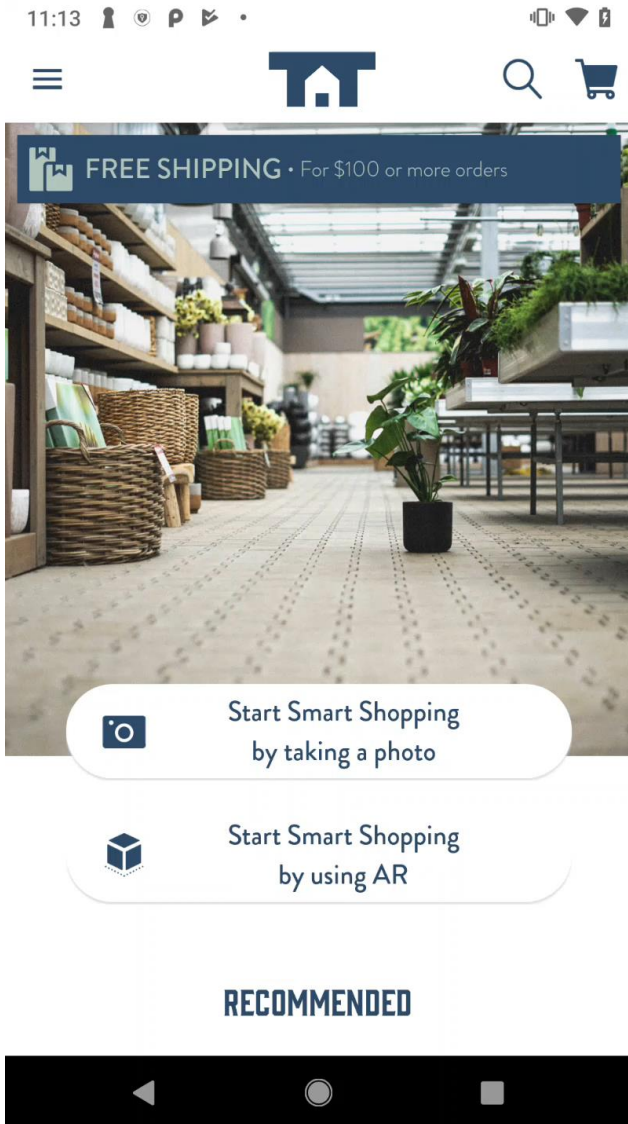


<https://developer.xamarin.com/releases/xamarin-forms/xamarin-forms-4.0/4.0.0-pre1/>



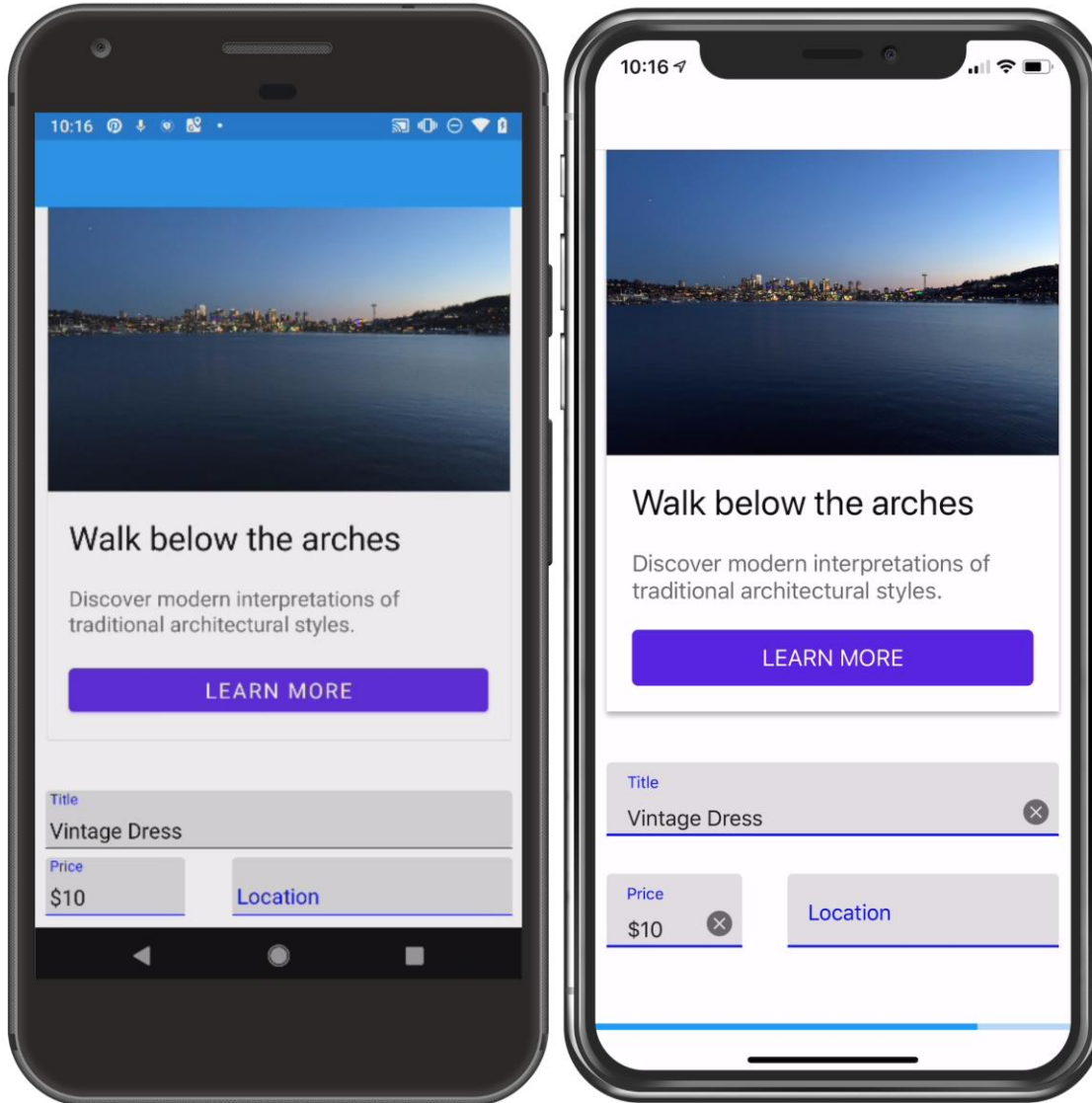
<https://github.com/Microsoft/TailwindTraders-Mobile>

# Xamarin.Forms 4 – Shell - URL



**Shell** introduces a simplified way to express the structure and navigation for your application in a single file. No more dealing with different page types to handle setting up complicated navigation. It supports flyout menu, bottom tabs, top tabs, and an integrated search handler. A **new URI based navigation routing system** has been implemented in addition to the existing push/pop navigation service. Now you can route to any point in your application, no matter how deep, and handle navigation events to perform custom logic such as canceling the back action.

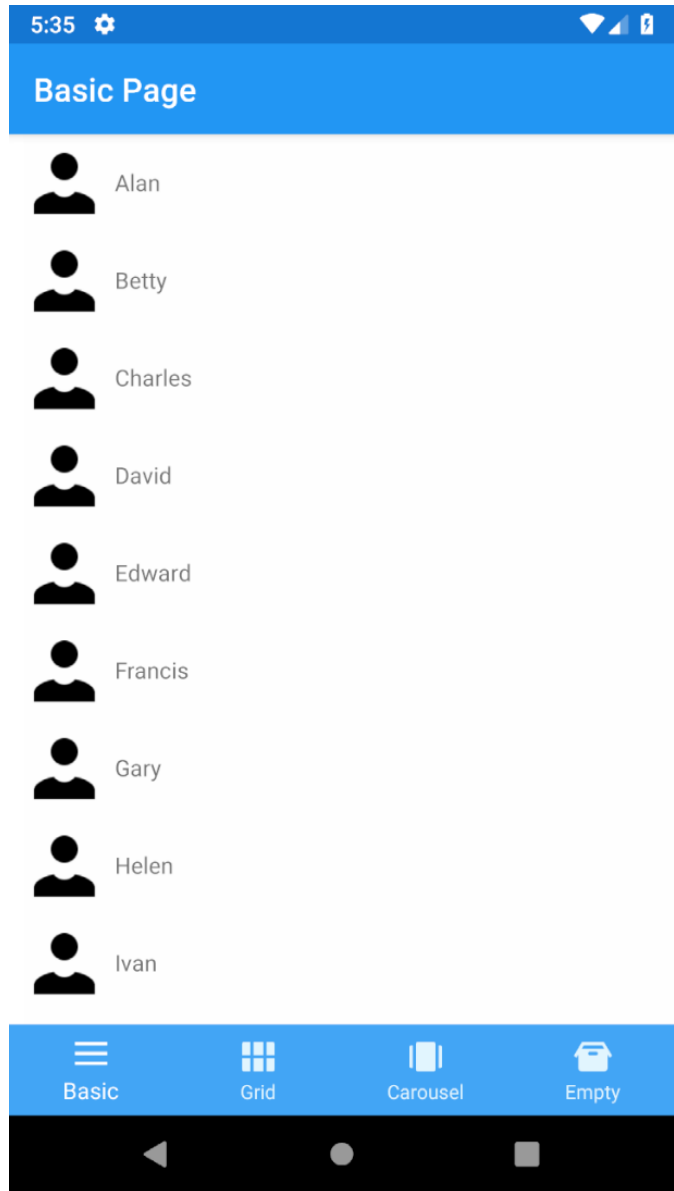
# Xamarin.Forms 4 – Visual



**Visual** is a new way to achieve consistent UI design across iOS and Android, beginning with an implementation of Google's Material Design. This first iteration includes Button, Entry, Frame, and ProgressBar. Visual goes beyond styles to also unify behavior and when necessary providing highly customized renderers.



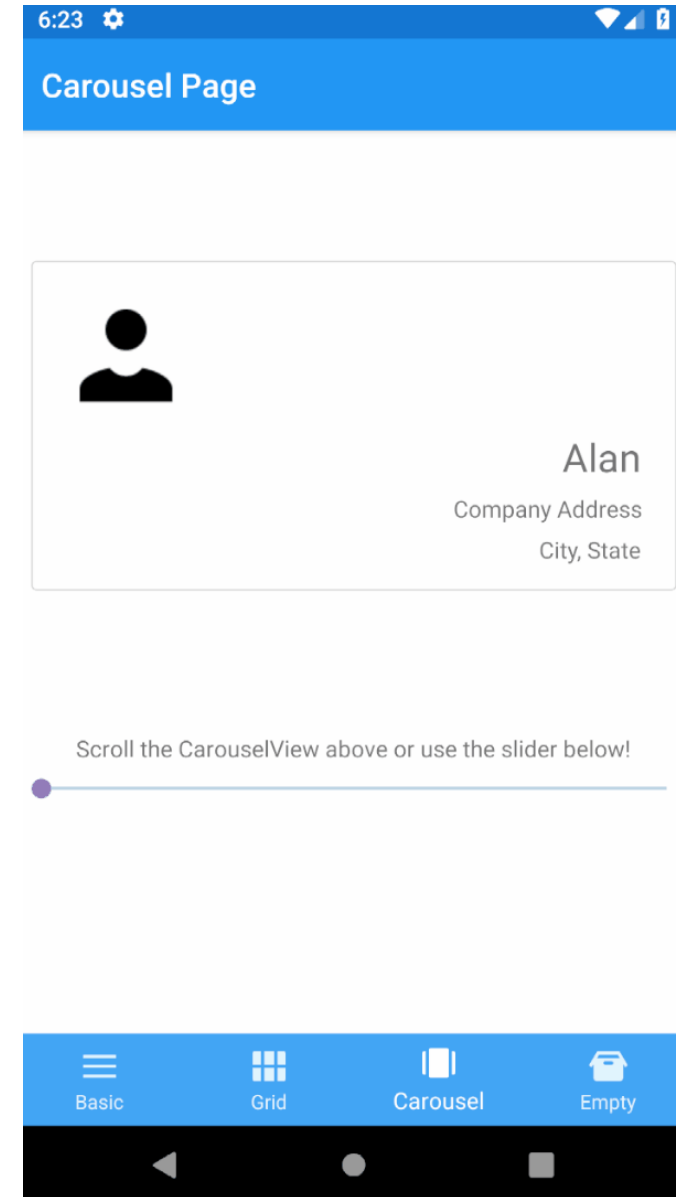
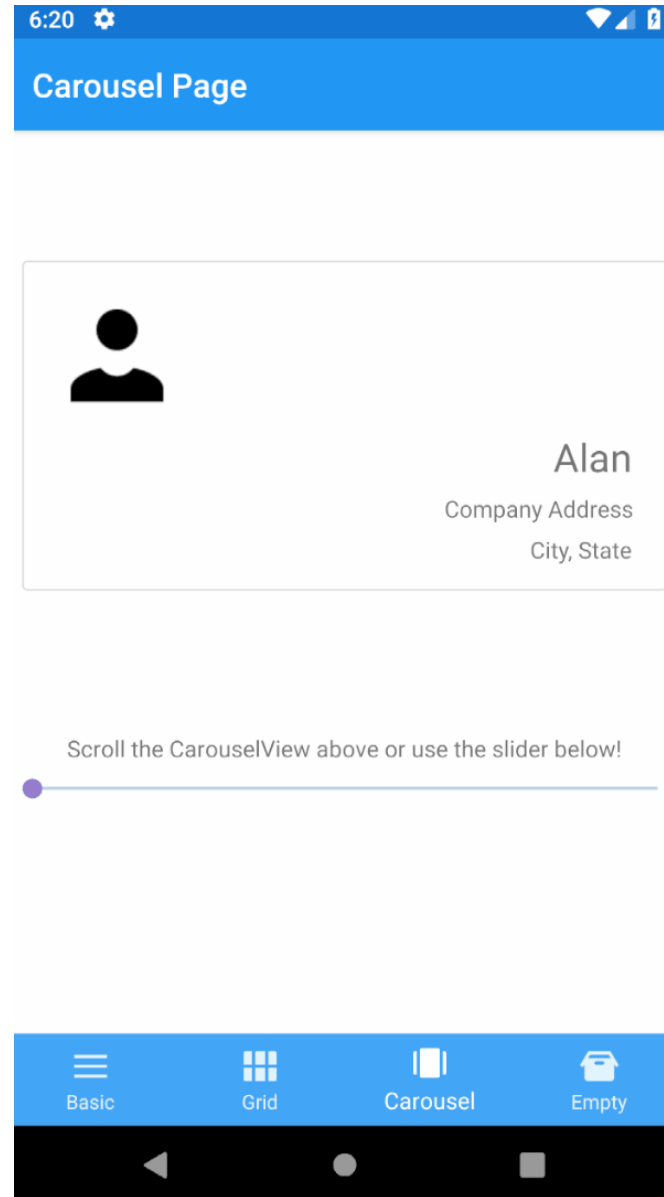
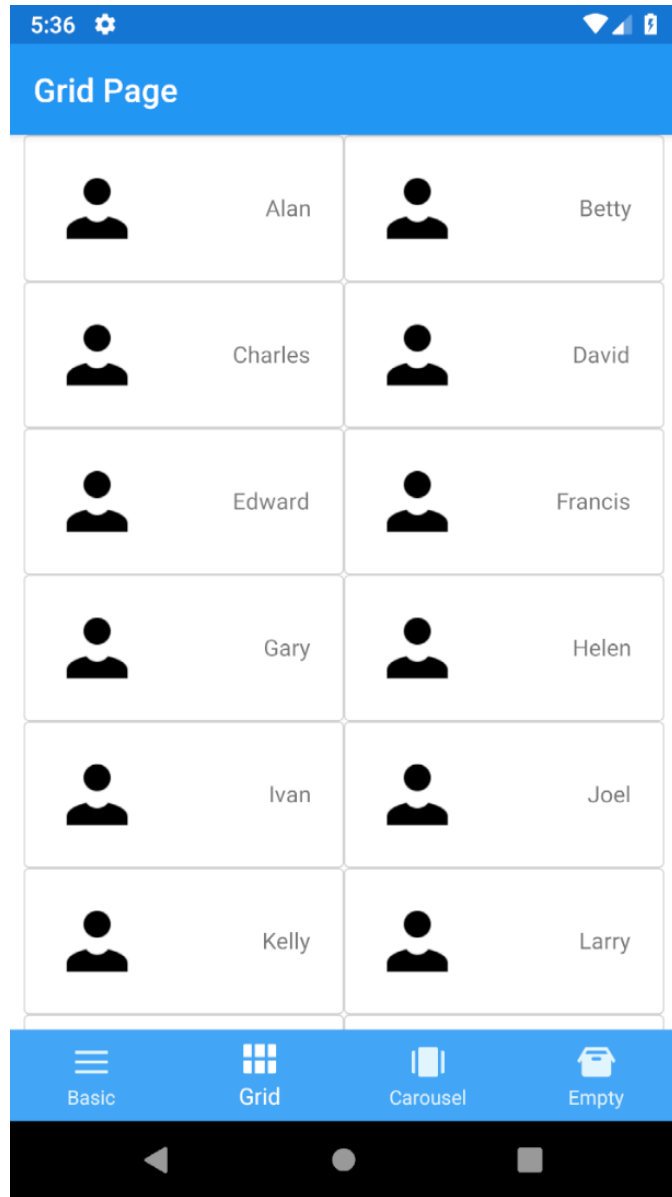
# Xamarin.Forms 4 – CollectionView and CarouselView



**CollectionView** is the flexible and performant list control that you've been asking for. It can handle horizontal, vertical, and grid layouts out of the box, and you can provide custom layouts as well.

CollectionView is also the foundation for **CarouselView**.

# Xamarin.Forms 4 – CollectionView and CarouselView



# Xamarin.Forms 4 – Faster Lists, More Layouts



TeamBuilderDemo (Running) - Microsoft Visual Studio

File Edit View Project Build Debug Team Tools Test ReSharper Analyze Window Help

Debug Any CPU TeamBuilderDemo.Android Continue

SpacePage.xaml

ContentPage

```
1 <?xml version="1.0" encoding="utf-8" ?>
2 <ContentPage xmlns="http://xamarin.com/schemas/2014/forms"
3   xmlns:x="http://schemas.microsoft.com/winfx/2009/xaml"
4   x:Class="TeamBuilderDemo.SpacePage" Title="Find Your Workspace" BackgroundColor="White">
5
6   <ContentPage.Content>
7
8     <StackLayout Margin="5">
9
10      <Label HorizontalOptions="Fill" HorizontalTextAlignment="Center"
11        Text="Find the perfect space for your project." TextColor="{StaticResource ThemeColor}"></Label>
12
13      <SearchBar x:Name="Search" HorizontalOptions="Center" BackgroundColor="White" TextColor="{StaticResource ThemeColor}"
14        PlaceholderColor="{StaticResource ThemeColor}" Placeholder="Search"></SearchBar>
15
16      <CollectionView x:Name="Spaces" Margin="0,5,0,0">
17        <CollectionView.EmptyView>
18          <StackLayout>
19            <Label FontAttributes="Bold" FontSize="18" Margin="10,25,10,10"
20              HorizontalOptions="Fill" HorizontalTextAlignment="Center"
21              Text="No results matched your filter."></Label>
22            <Label FontAttributes="Italic" FontSize="12"
23              HorizontalOptions="Fill" HorizontalTextAlignment="Center"
24              Text="Maybe try a broader filter?"></Label>
25          </StackLayout>
26        </CollectionView.EmptyView>
27      </CollectionView>
28    </StackLayout>
29  </ContentPage.Content>
30 </ContentPage>
```

Properties Solution Explorer Notifications Watch 1

Android Emulator - oreo:5554





3:49

<https://azure.microsoft.com/en-us/blog/getting-started-with-cognitive-services-language-understanding-container/>

Si aggiunge a:

- **Text Analytics**
- **Face Container**
- **Recognize Text**

My Apps ?

|  |  |  |  |                      |
|--|--|--|--|----------------------|
|  Rename |  Export |  Export endpoint logs |  Delete | human resources with |
| <input checked="" type="checkbox"/> Name   | Export as JSON   | Culture  | Created date ▾   | Endpoint hits        |
| <input checked="" type="checkbox"/> Human Resources with Key Phrase entity               | Export for container (GZIP) >  | Production slot  |  |                      |
|  |  | Staging slot   | 5/3/18   | 0                    |

<https://azure.microsoft.com/en-us/blog/getting-started-with-azure-cognitive-services-in-containers/>

<https://azure.microsoft.com/en-us/blog/bringing-serverless-to-azure-kubernetes-service/>

- Azure Kubernetes Service virtual nodes enters public preview
  - enables you to extend the consistent, powerful Kubernetes API provided by AKS with the scalable, container-based compute capacity of ACI
- Donating the Virtual Kubelet project to the Cloud Native Compute Foundation
- Azure Container Instances GPU support enters public preview

<https://azure.microsoft.com/en-us/blog/azure-functions-gets-better-for-python-and-javascript-developers/>

- **Consumption Plan for Linux-based** Azure Functions
- Azure Functions now supports Python development using **Python 3.6** on the cross-platform Functions runtime 2.0 to enable machine learning-related scenarios using a serverless architecture.
- Azure Functions Support for **JavaScript** on its **Durable Functions** Extension



# Demo

# Azure functions

# Python

- **Microsoft Edge and Chromium Open Source**

- <https://github.com/MicrosoftEdge/MSEdge/blob/master/README.md>
- Porting Chromium to ARM64
- Enabling Web RTC to work for Windows UWP apps
- Improving ANGLE (backend for WebGL)
- *We will adopt Chromium as the web platform for Microsoft Edge desktop*
- *We will evolve the Microsoft Edge app architecture, enabling distribution to all supported versions of Windows including Windows 7 and Windows 8, as well as Windows 10. We will also bring Microsoft Edge to other desktop platforms, such as macOS.*
- *We will offer our Windows platform expertise to improve the experience of all Chromium-based browsers on Windows.*





- Azure Machine Learning service in GA
  - <https://azure.microsoft.com/en-us/blog/azure-machine-learning-service-a-look-under-the-hood/>
- Announcing the general availability of Azure Database for MariaDB
  - <https://azure.microsoft.com/it-it/blog/announcing-the-general-availability-of-azure-database-for-mariadb/>
- Announcing Azure API Management for serverless architectures
  - <https://azure.microsoft.com/en-us/blog/announcing-azure-api-management-for-serverless-architectures/>  
(Consumptions tier)



- Azure Boards Integration with GitHub Issues
  - <https://azure.microsoft.com/en-us/blog/linking-your-github-commits-with-azure-boards/>
- New Azure Pipelines announcements – VS Code extension, GitHub Releases, and more
  - <https://azure.microsoft.com/en-us/blog/new-azure-pipelines-announcements-vs-code-extension-github-releases-and-more/>



- Azure Serverless Community Library
  - <https://serverlesslibrary.net/>
- GPU Support in ACI Public Preview
  - Azure Container Instances (ACI) enables customers to easily run containers on Azure without managing servers.
  - <https://azure.microsoft.com/en-us/blog/bringing-serverless-to-azure-kubernetes-service/>



- **CAST Highlight** for Visual Studio Enterprise Subscriptions
  - <https://content.casthighlight.com/visual-studio-enterprise-offer>
- **CloudPilots**
  - <https://docs.microsoft.com/en-us/visualstudio/subscriptions/vs-cloudpilot>

Tutte le news riportate oggi si possono trovare qui:

**[https://news.microsoft.com/uploads/prod/sites/543/2018/12/Connect-2018-Book-of-News .pdf](https://news.microsoft.com/uploads/prod/sites/543/2018/12/Connect-2018-Book-of-News.pdf)**

# Grazie

Domande?



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