

Building cross-platform Modern Apps: the Design perspective

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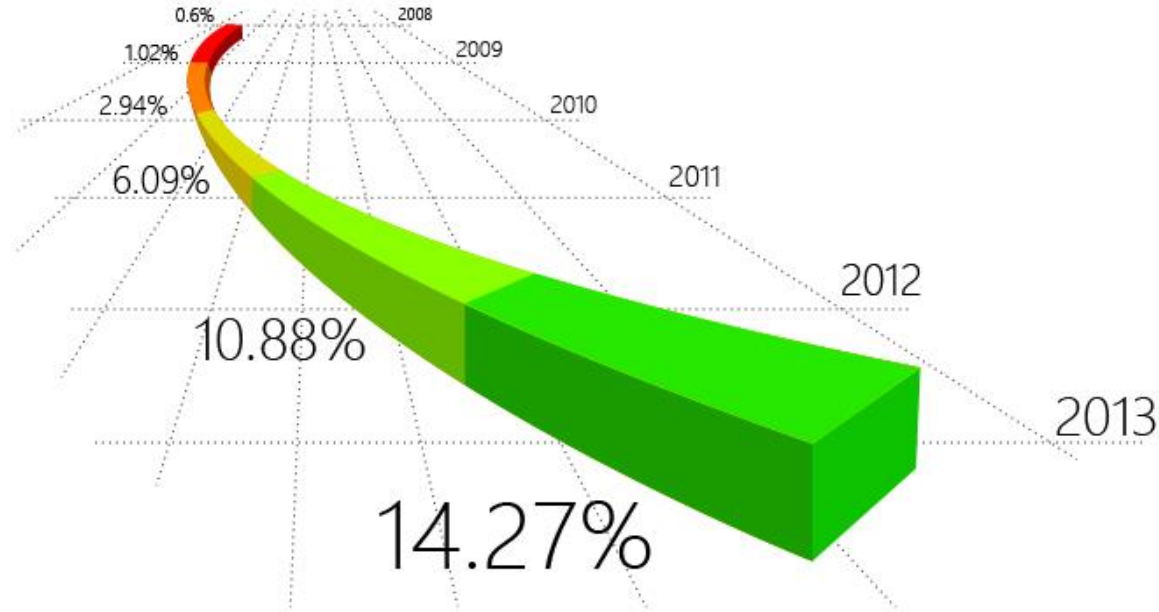
Agenda

- Mobile Platforms
- CoIT
- Development Options
- Xamarin Architecture
- Patterns and Principles
- Demos!
- Questions

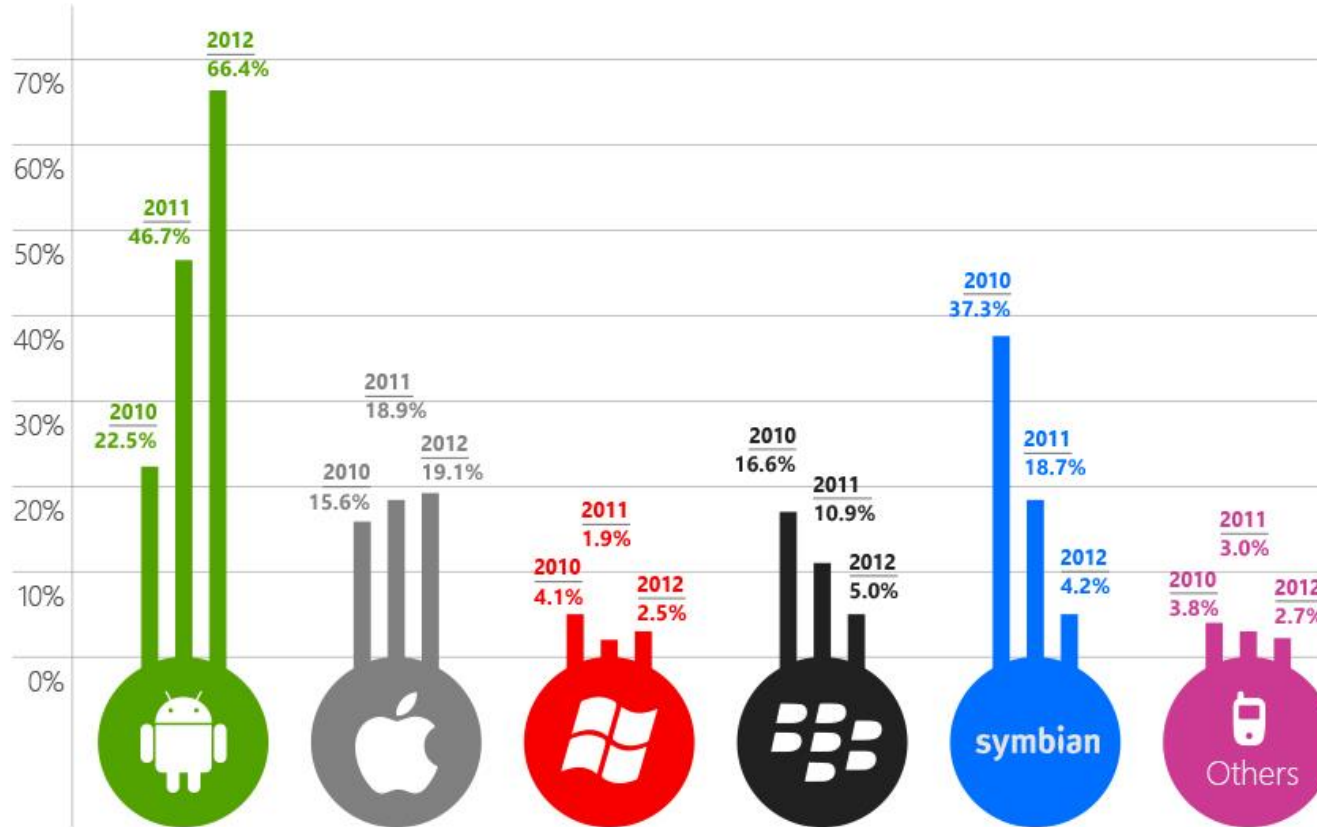
Key Objectives

- Discuss cross platforms development needs
- Approach to select the 'right' option
- Reusing your current investment
- Xamarin Overview

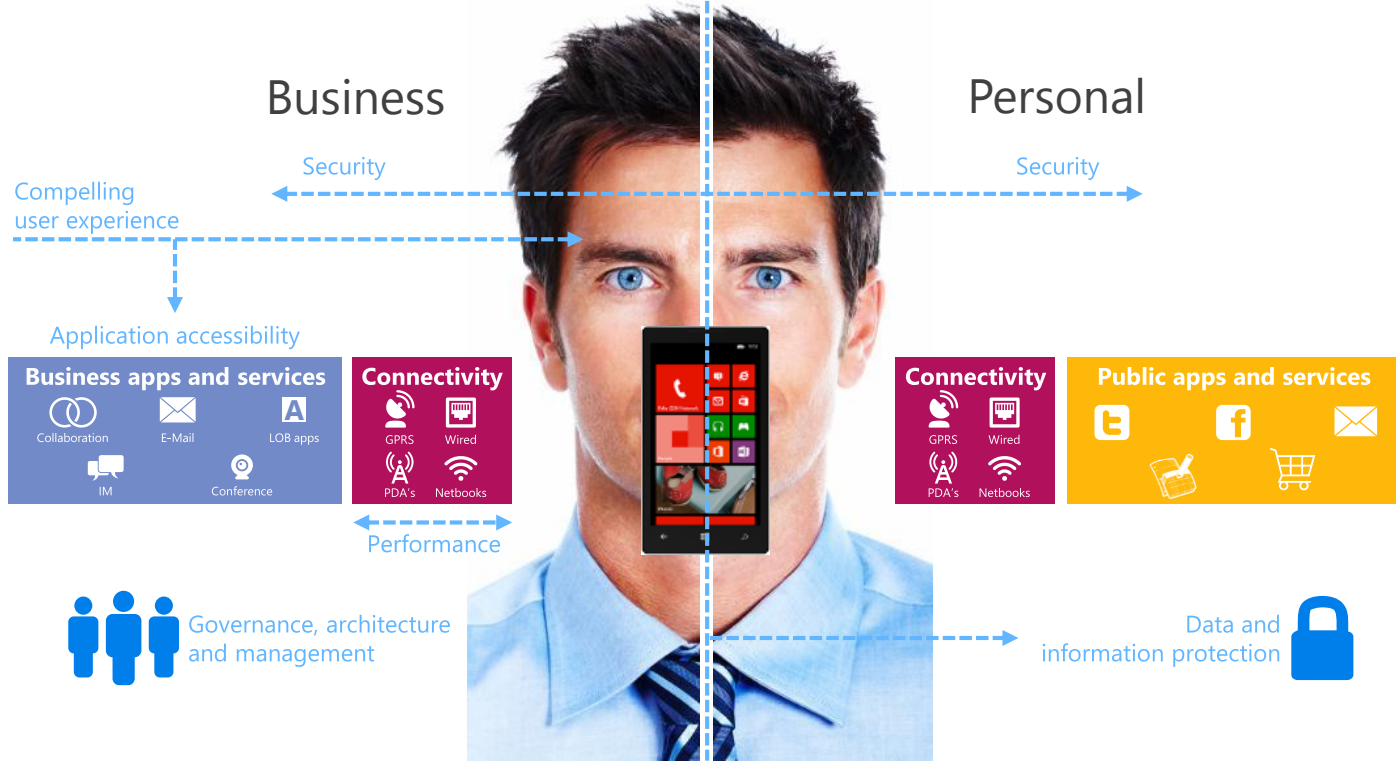
Mobile Web Growth

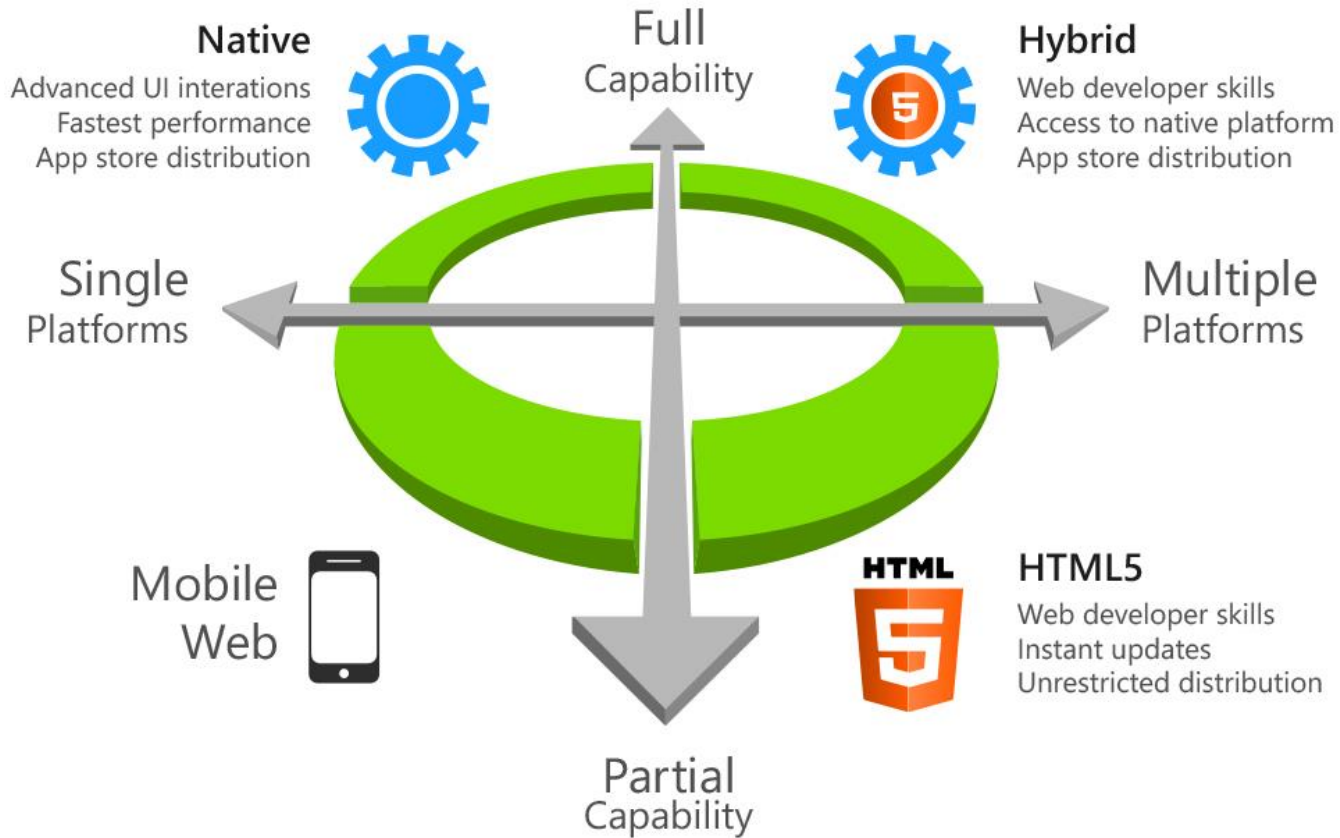


Mobile Platforms



A New Way of Work





Options

Web / Mobile Web

- Bootstrap (twitter)
- Zurb Foundation
- Mobify
- ASP.NET



HTML 5

- Sencha
- jQuery
- joApp
- jQTouch



Hybrid

- PhoneGap
- Facebook



Platform Specific

- Visual Studio
- XCode
- Eclipse



Interpreted

- RhoMobile
- Appcelerator
- JMango















Cross Compiled

- Kony
- iFactr
- DevExpress
- Xamarin



Lowest Common Denominator?

What about Native?

Platform	Dev Tools	Emulators	Delivery Model
	 Visual Studio		
	 eclipse		 Google play
			

Xamarin

Cross Platform

- Based on open source (Mono)
- Supports iOS, OSX, WP, Android, and Windows 8



Modern Development

- C#, LINQ, Lambda, Events
- Visual Studio
- Xamarin Studio
- Component Store



Native Support

- Native API (e.g. GPS, NFC, etc.)
- Platform specific UI Controls (e.g. Tab Control on Android)



Code Reuse

- Share code across platforms
- Invoke existing libraries built in Java, C#, Objective C



Native API

- Regular C# class libraries, mapped to Android and iOS APIs

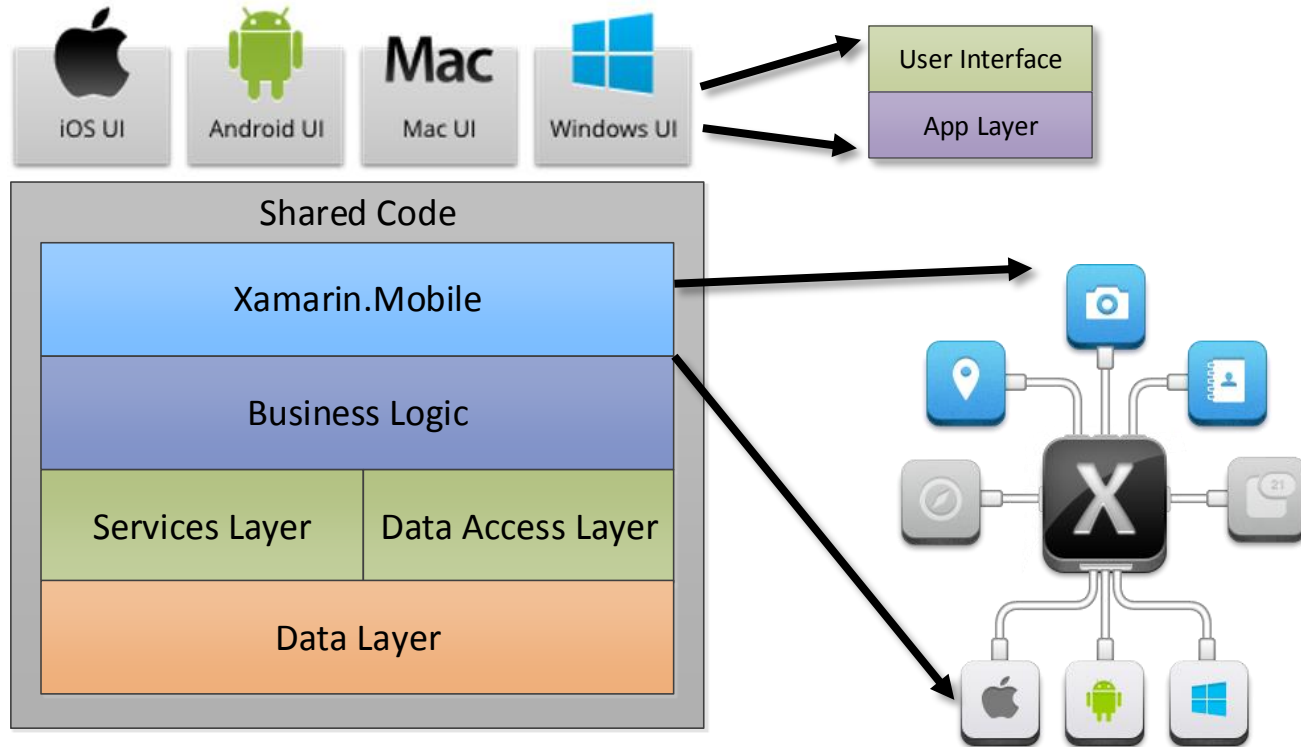


UI Design

- Good UI design tools
- Point and Click UI Design



Application Layers

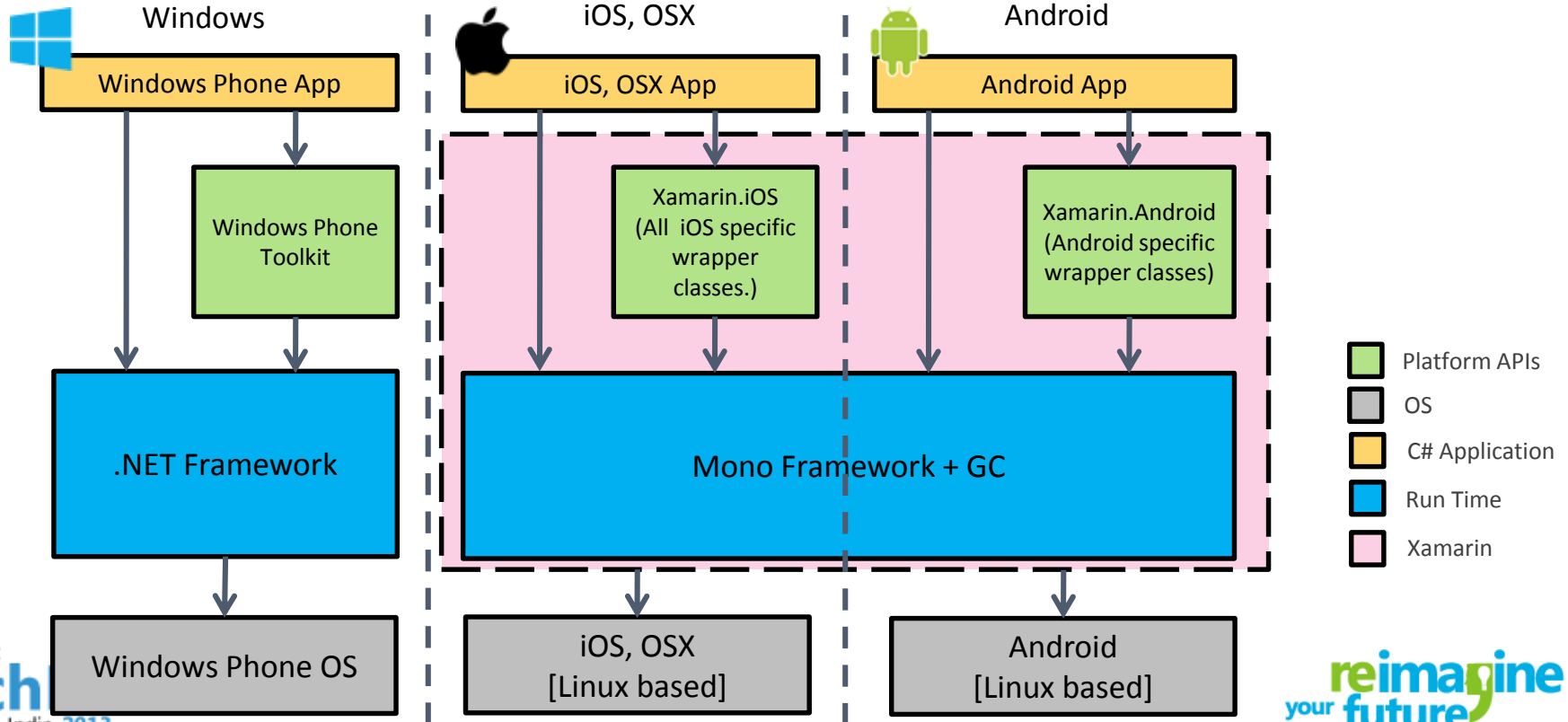


Demo

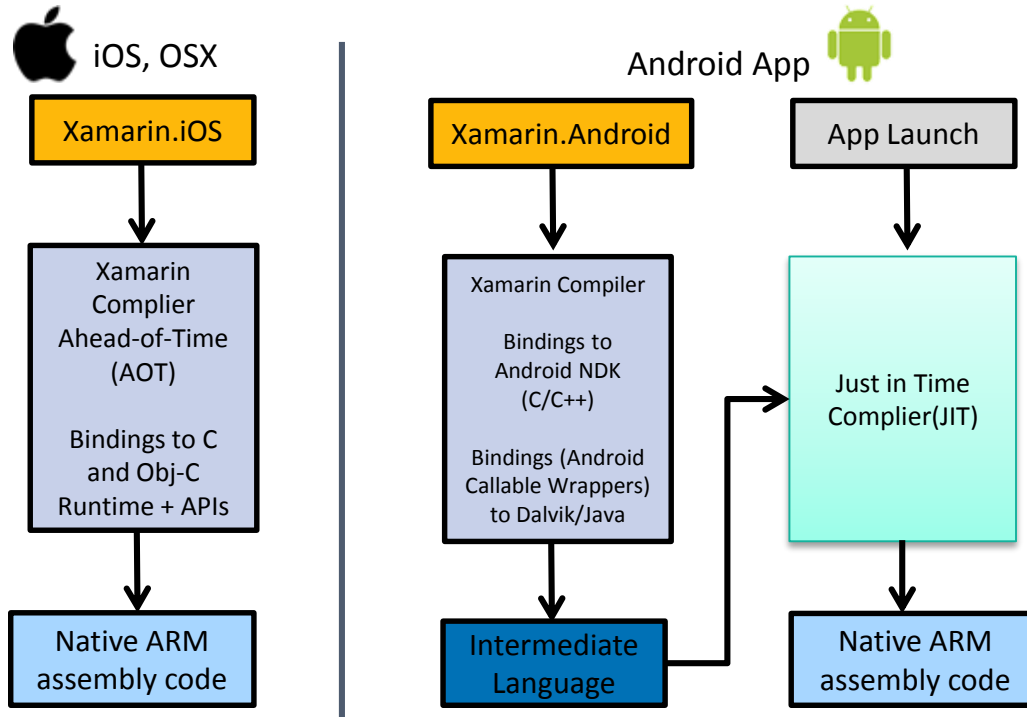
Introduction to Xamarin

- Simple Contact application
- iOS Development on Windows and Mac
- XStudio and Visual Studio

Xamarin Architecture



Xamarin App – Compile and Run

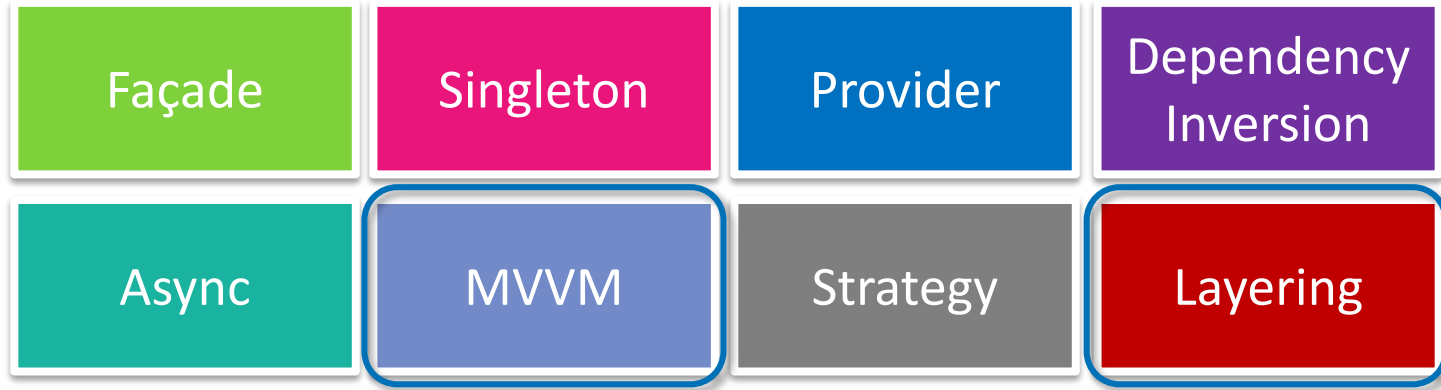


Demo

Applying MVVM for cross platform device development

- Advanced Contact Application
- Native APIs
- Hardware Access
- Reuse across Android and iOS

Patterns and Principles



Demo

Bringing it all together

- Real-time airline tracker
- iPad, Android Slate, Win 8 Slate
- Native integration – Maps, and GPS
- Off-line data support
- Code Reuse across the platforms

Recap

- Mobile growth and platforms
- Mobile development options
- Native development challenges
- Xamarin Architecture
- Patterns and Principles
- Demos!

Questions?

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Microsoft

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- Know more about Accenture-Avanade-Microsoft '**Power of 3**' relationship
- Explore cool things we do with Microsoft technologies, Kinect and Windows 8
- There's something in store for you too!

Participate in a short quiz and win interesting goodies!

Resources



- Microsoft Virtual Academy
<http://aka.ms/mva>



Windows Server 2012

- Windows Server 2012 Evaluation
<http://aka.ms/ws2012rtm>



- System Center 2012 SP1 Evaluation
<http://aka.ms/sc2012rtm>



Windows Server 2012

- Windows Server 2012 Virtual Labs
<http://aka.ms/ws2012vlabs>



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