

Getting Started with Hybrid Mobile Apps with VS TACO and TACO Tools

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About Brian Noyes

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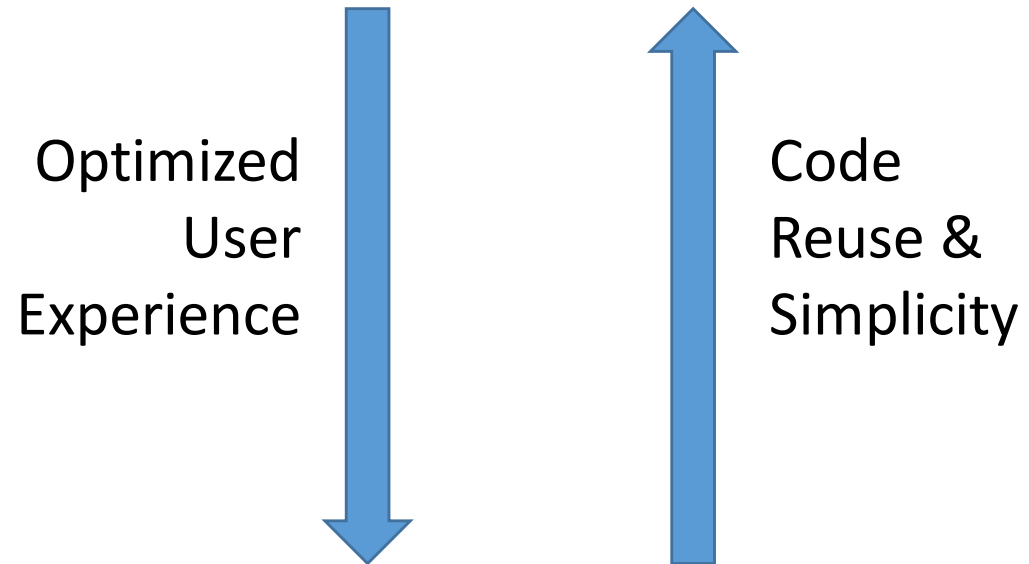
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Agenda

- **Hybrid Mobile Apps overview**
- **Cordova Overview**
- **Demos!**
- **Ionic (time permitting)**

Mobile Apps Development Spectrum

- Mobile Web
- Cordova Apps
- Xamarin Apps
- Native Apps



PhoneGap vs Cordova

- PhoneGap
 - Original name of the open source platform for hybrid HTML mobile apps
 - Now an Adobe brand name
 - Same basic platform as Cordova
 - Branded experience from Adobe including PhoneGap Build
 - Cloud build and deployment of PhoneGap apps
- Cordova
 - Apache foundation open source platform
 - Can be used in isolation of any paid tools
 - Leveraged by various tool vendors to provide their own unified development experience
 - Microsoft Visual Studio, Telerik, DevExpress, etc

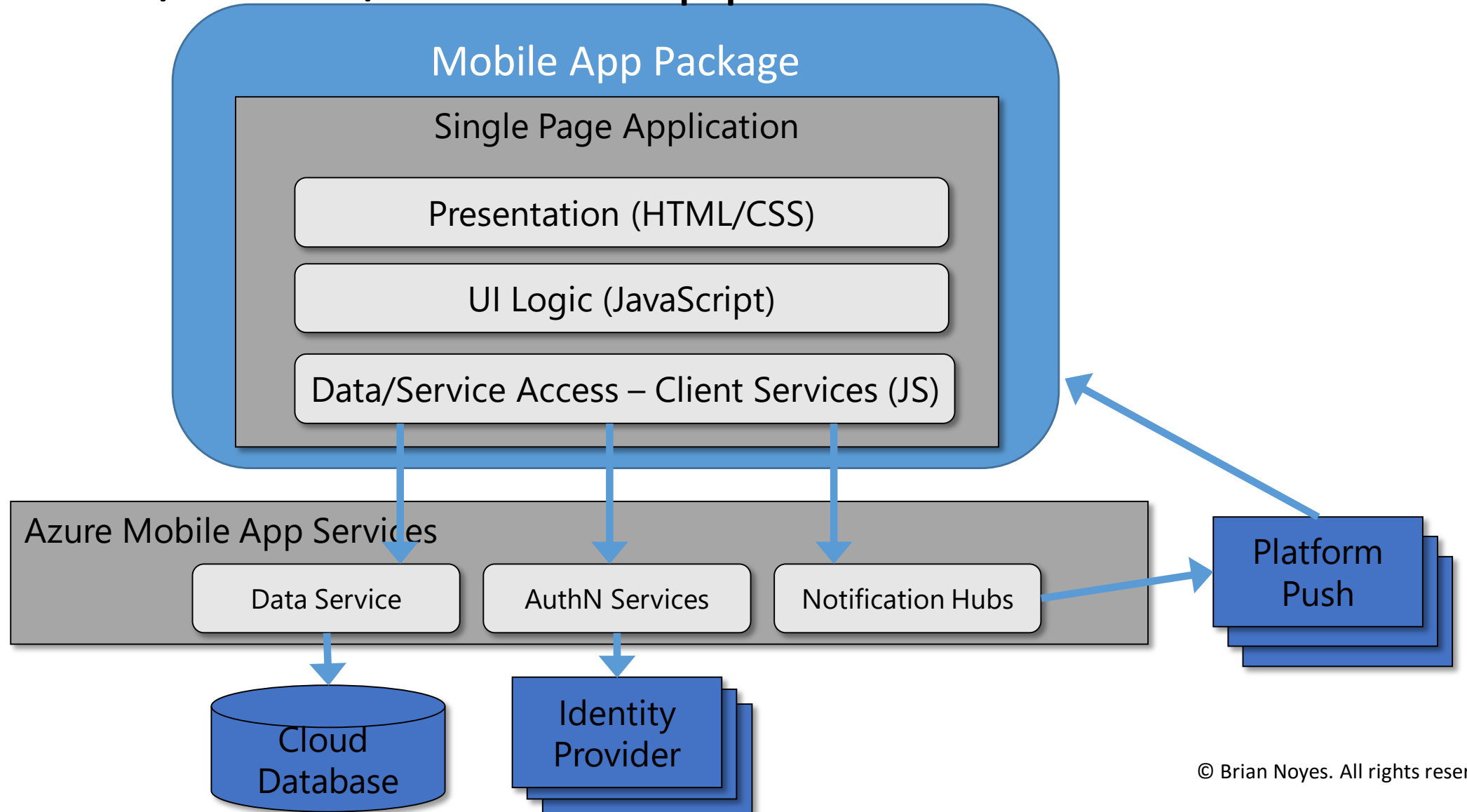
What is Cordova?

- Platform for building packaged mobile apps using HTML/CSS/JavaScript
- Uses platform web view for rendering app screens
- Uses native Cordova Plugins to access device capabilities
 - i.e. camera, geolocation, contacts, etc.
- Bundles web assets (HTML/CSS/JS) into a native app package for delivery via device platform app stores

When Does Cordova Make Sense?

- Existing HTML/CSS/JS Skills
- Need quick time to market across multiple platforms
- Low graphics complexity
- Maximize code reuse across platforms
- Shared views / functionality with Web Browser app for desktop machines
- Not too hung up on “native look and feel”
 - Can get awfully close, but probably not “pixel perfect”
- ~~“Free” development~~

Cordova/Ionic/Azure App Architecture



Cordova Development Tooling

- Many paths to success
- Need:
 - Code editor
 - Command line or IDE based compiler
 - Debugger
 - Emulators/Simulators
 - Real devices
 - Client app framework

Cordova Development Tooling

- Editor options:
 - VS Code, Sublime, Atom, etc.
- IDEs:
 - VSTACO, WebStorm, XCode, Eclipse
- Command line tools / compilation
 - Cordova CLI, TACO CLI, Ionic CLI, remotebuild, Phonegap Build, Telerik AppBuilder
- Debuggers
 - Web Inspector (iOS), adb (Android), Chrome debugger, VS TACO, VS Code
- Emulator / Simulator
 - Ripple (Chrome extension), iOS Simulator, Android SDK Emulator, VS Android Emulator
- Frameworks
 - Angular/Ionic, Telerik Kendo UI, Sencha Touch, etc.

Ionic Overview

- UI Framework for Cordova Apps
- Built on top of Angular
 - Uses Angular for app structure (MVC/MVVM), data binding, etc
 - Provides UI controls optimized for mobile and adaptive per platform
 - Provides routing/navigation based on Angular UI Router
 - Provides responsive design styling based on Bootstrap
- Much better starting point than a blank HTML page
- Ionic Platform – ionic.io
 - Hosted services – deployment, push notifications, authentication, native builds, live updates

Ionic CLI

- Command line based on Cordova CLI
- Pass through to primary Cordova commands
 - platform, plugins, build, emulate, run
- Adds custom commands for ionic specific things
 - Start – create starter projects
 - Serve – runs a local (node-based) web server to run and debug your app code in the browser
 - Upload – uploads your app to their cloud for distribution

Ionic UI Components

- Common UI structural controls for things like:
 - Tabs
 - Cards
 - Lists
 - Headers
 - Footers
 - Menus
 - Forms
- <http://ionicframework.com/docs/components/#item-thumbnails>

Ionic JavaScript (Angular) Services

- Lots of prebuilt services you can just inject and use for things like:
 - Gestures and events
 - Keyboard customizations
 - Scrolling control
 - Popups
 - Spinners
 - etc

Resources

- **taco.visualstudio.com**
- **taco.tools**
- **ionicframework.com**
- **Pluralsight**
 - <https://app.pluralsight.com/library/courses/building-mobile-apps-ionic-framework-angularjs/table-of-contents>
- **.NET Rocks Show 1278**
 - <http://dotnetrocks.com/>

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