Becoming a Pro

IN Mobile Applications Testing

Overview: *Mobile APPS*

- **Categories**
- Types
- Distribution/Installation/Logs
- Mobile Test Industry Standards
- Remote Device Access (RDA)
- Emulators
- Simulators
- Troubleshooting Guide
- App Risk Analysis

MOBILE APPS: Categories

Utilities

Entertainment

Games

News

Productivity

Lifestyle

Social Networking

MOBILE APPS: Utilities

Calculators

Note-pads

Communi-cation. apps

Weather apps

MOBILE APPS: Entertainment

Face Juggler

Ice Effex

Duolingo

DubSmash

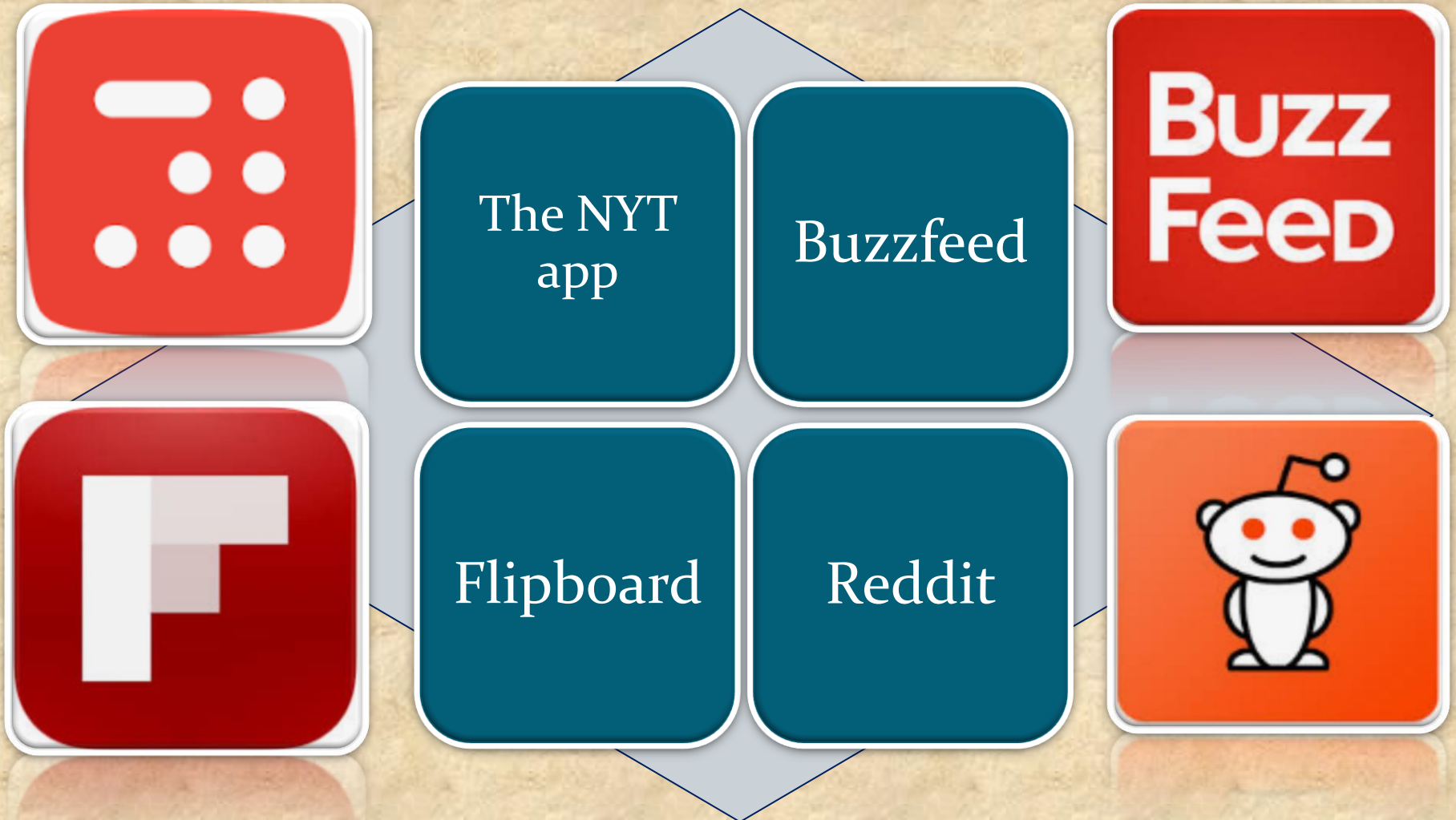# MOBILE APPS: Games

Angry Birds

Sudoku

Trivia Crack

Candy Crash Saga

MOBILE APPS: NEWS

The NYT app

Buzzfeed

Flipboard

Reddit

7

MOBILE APPS: Productivity

Finance apps

Calendars

Translators

Grocery list makers
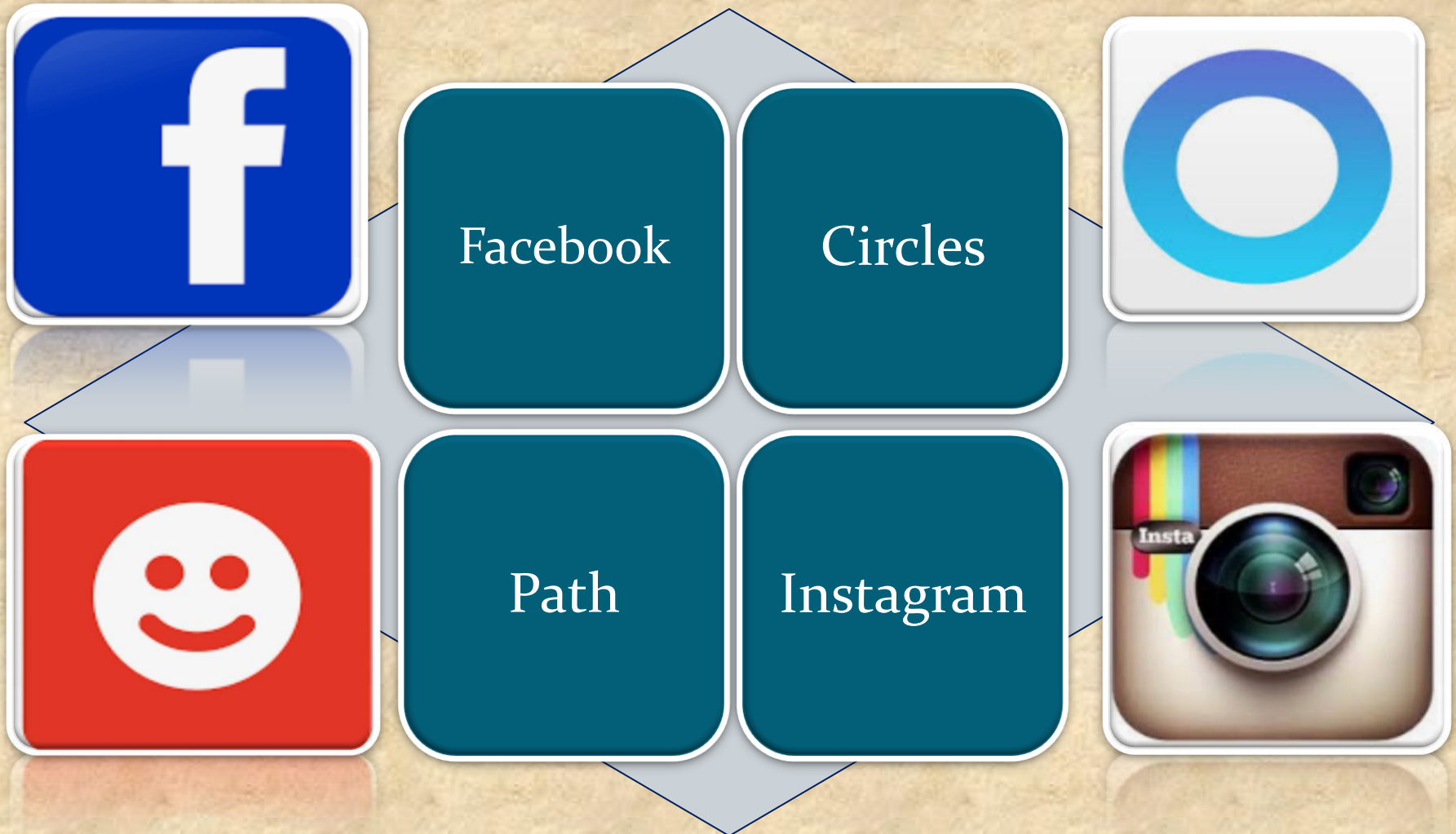
MOBILE APPS: Lifestyle

Music apps

Travel Apps

Food & Drink apps

Dating apps

MOBILE APPS: Social Networking

Facebook

Circles

Path

Instagram

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MOBILE APPS: Types

Tree basic types of "app"

|	
Native	*Built specifically to the needs of the various operating systems such as Apple's iOS or Android*
Web	*Websites built using HTML that are designed specifically for smaller screens*
Hybrid	*Native app shell with feeds from the website*

MOBILE APPS: Native APP

Written using the default language for the mobile platform, which is Objective C or Swift for iOS and Java/Kotlin for Android.

Compiled and executed directly on the device.

Using the platform SDK (API), the app can communicate with the platform to access device data or load data from an external website using http requests.
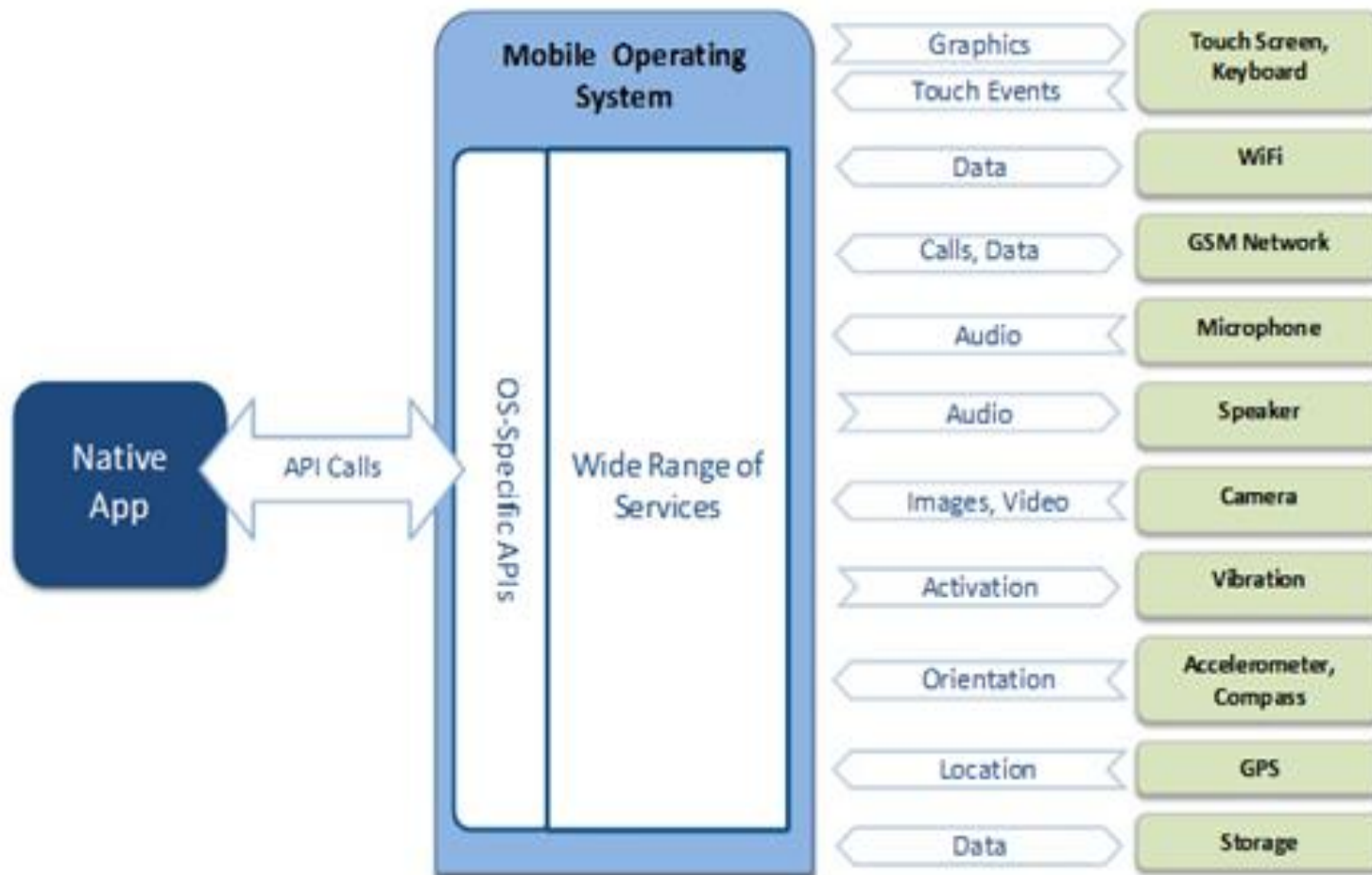
MOBILE APPS: Native APP

PROS

CONS

Native APIs

Language requirements

Performance

Not cross platform

Same environment

High level of effort
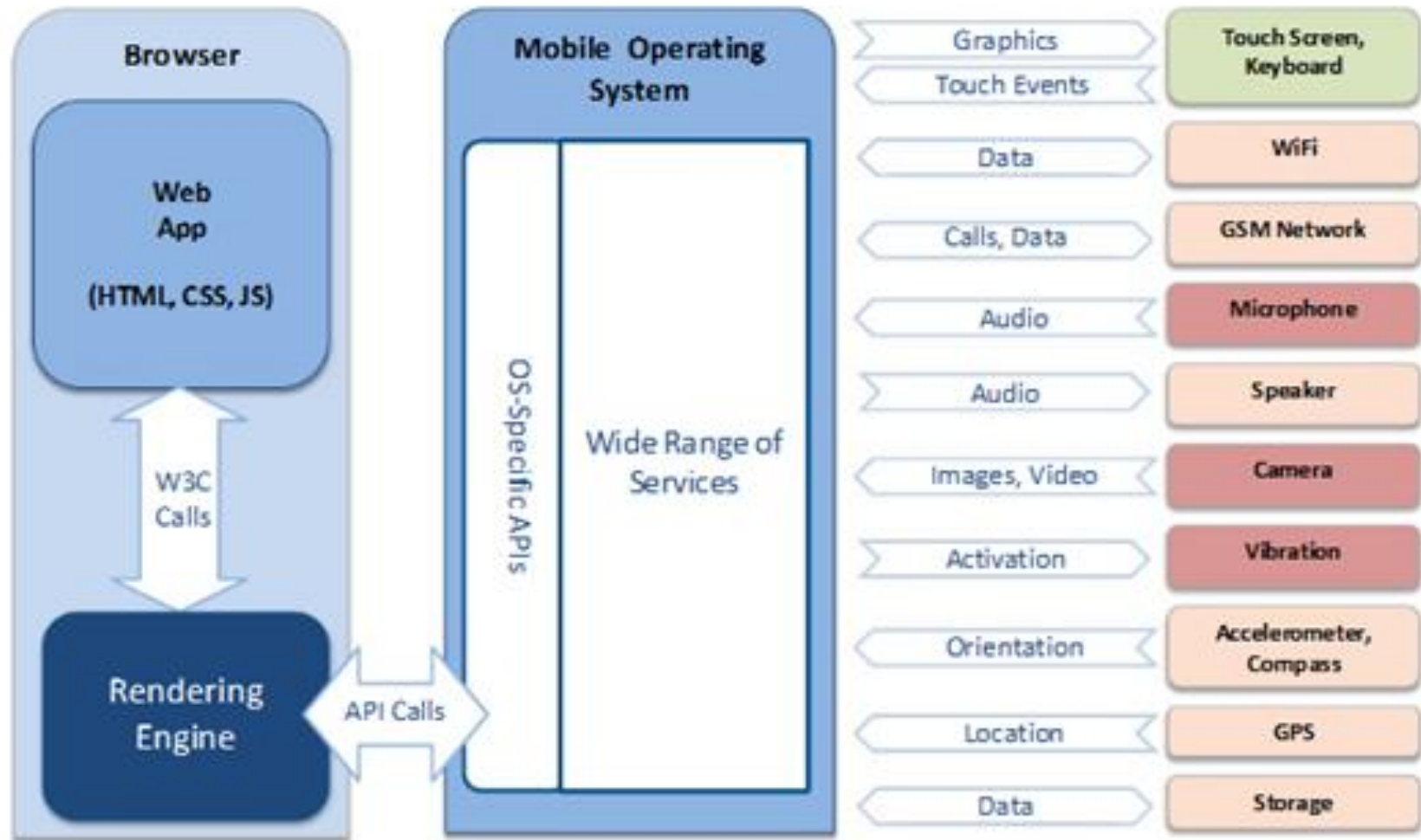
MOBILE APPS: WEB APP

Mobile websites are applications that work well on a mobile device, but are accessed through the mobile browser.

These websites viewed on a mobile device in a mobile browser, with the exception of being designed to fit a mobile device screen size.

Web applications commonly use a combination of server-side script (ASP, PHP, etc) and client-side script (HTML, Javascript, etc.) to develop the application..

MOBILE APPS: WEB APP

MOBILE APPS: WEB APP

HTML 5

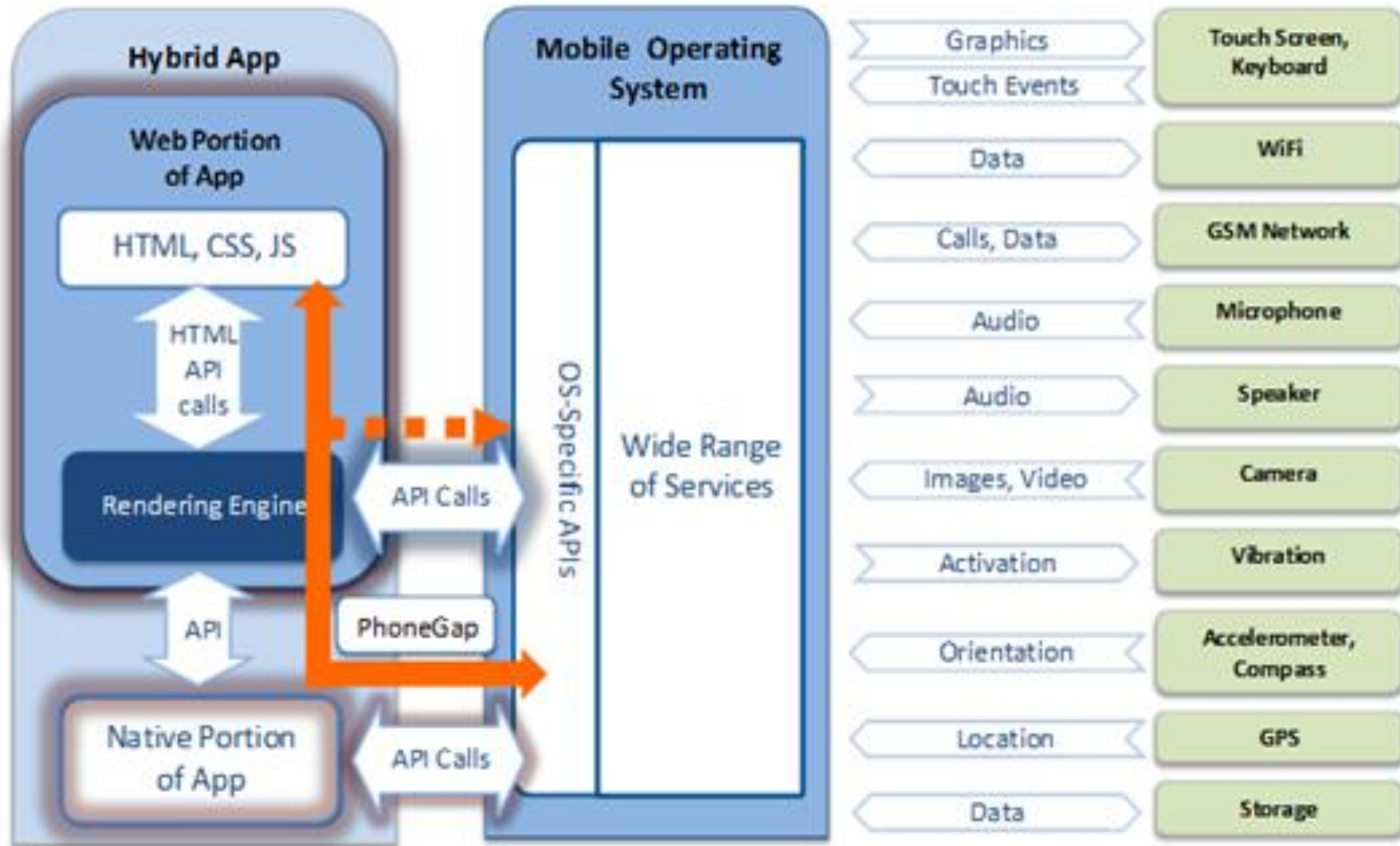| PROS	CONS
Maintainability	No native access
No installation.	Requires keyboard to load
Cross platform.	Limited user interface.

MOBILE APPS: HYBRID APP

A hybrid app is one that combines elements of both native and Web applications

Hybrid apps are often mentioned in the context of mobile computing

Native source code is written and compiled into an executable program and a web based component written with HTML, JavaScript, and CSS

MOBILE APPS: HYBRID APP ANATOMY

MOBILE APPS: HYBRID APP

PROS

- Cross platform
- Same skills as web development
- Access to device
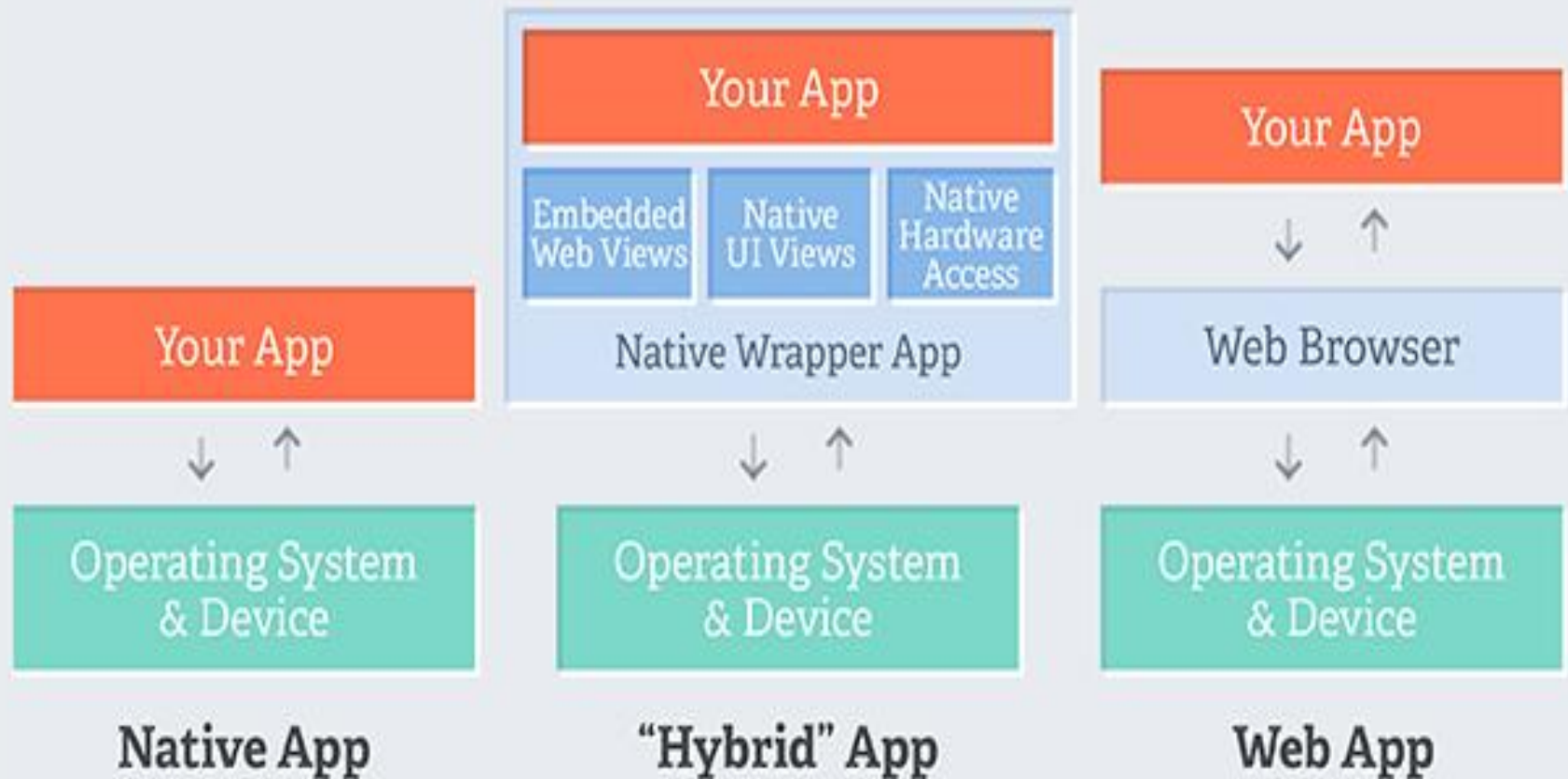- Ease of development

CONS

- Web view limitations
- Native via plugins
- No native user interface controls
- Experienced developers

MOBILE APPS: SUMMARY

Mobile App Technology Stacks

MOBILE APPS: SUMMARY

Native Mobile App
- IOS - Developed using Objective-c
- Android - Developed using JAVA
- Need to Install from APP Store.
- Available as an Application on Device.

Mobile Web App
- Developed using typical web development technology - HTML, CSS, Java Script.
- View size of the Web page fit to the real-estate of the device.
- Accessed through the browsers on the device

Hybrid Mobile App
- Wrapping the HTML and creating Native like look and feel (HTML within the app itself). Framework like Phone Gap support this development.
- Native Mobile App with Web view control and render the HTML directly on the web view (HTML Rendered from enterprise server).
- View size of the Web page fit to the real-estate of the device.
- Accessed through the browsers on the device

MOBILE APP types COMPARISSON
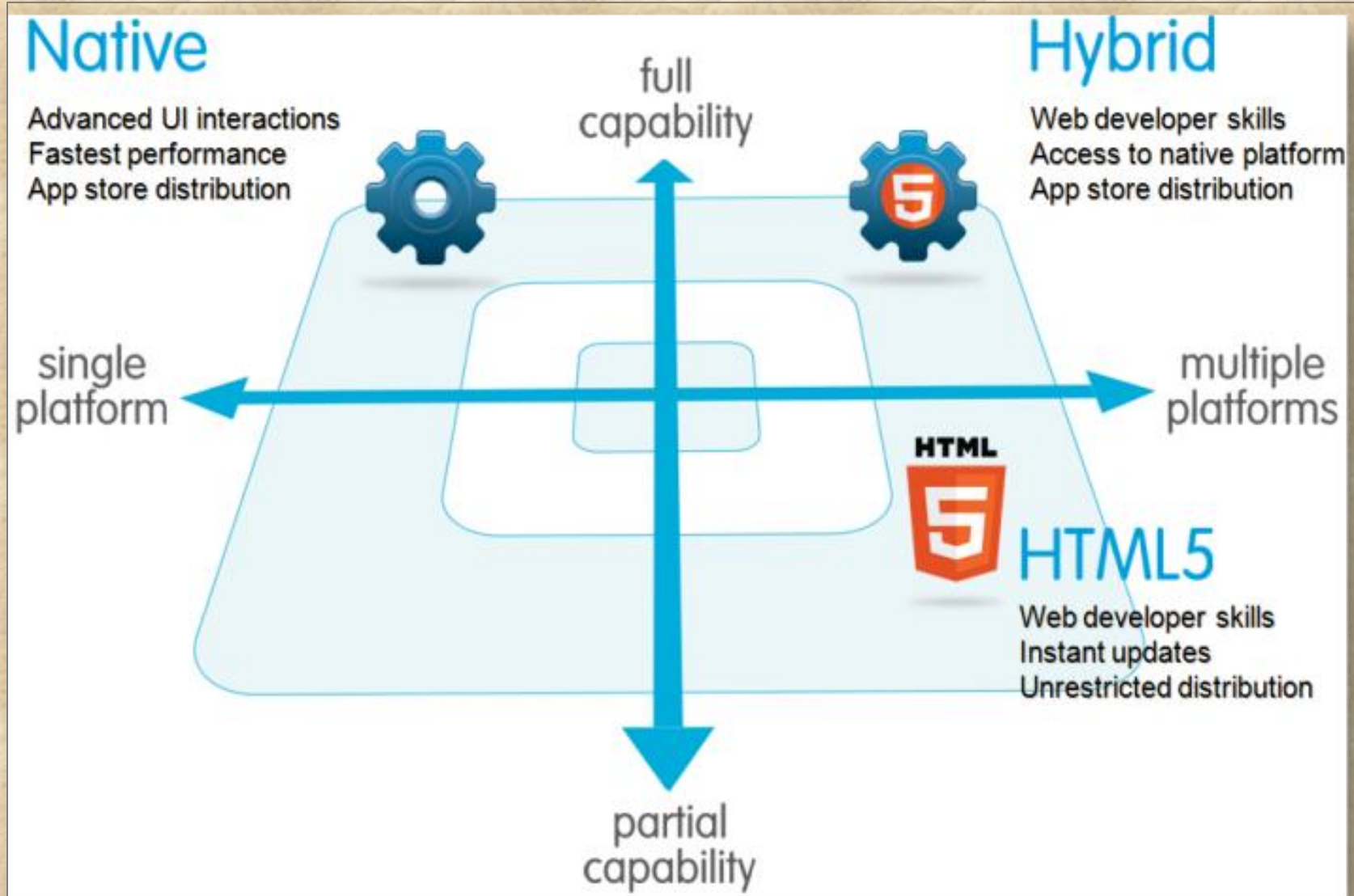
Mobile APPS : Conclusion

LIST	Native	HTML5	Hybrid
App Features			
Graphics	*Native APIs*	*HTML, Canvas, SVG*	*HTML, Canvas, SVG*
Performance	*Fast*	*Slow*	*Slow*
Native look and feel	*Native*	*Emulated*	*Emulated*
Distribution	*Appstore*	*Web*	*Appstore*
Device Access			
Camera	*Yes*	*No*	*Yes*
Notifications	*Yes*	*No*	*Yes*
Contacts, calendar	*Yes*	*No*	*Yes*
Offline storage	*Secure file storage*	*Shared SQL*	*Secure file system, shared SQL*
Geolocation	*Yes*	*Yes*	*Yes*
Gestures			
Swipe	*Yes*	*Yes*	*Yes*
Pinch, spread	*Yes*	*No*	*Yes*
Connectivity	*Online and offline*	*Mostly online*	*Online and offline*