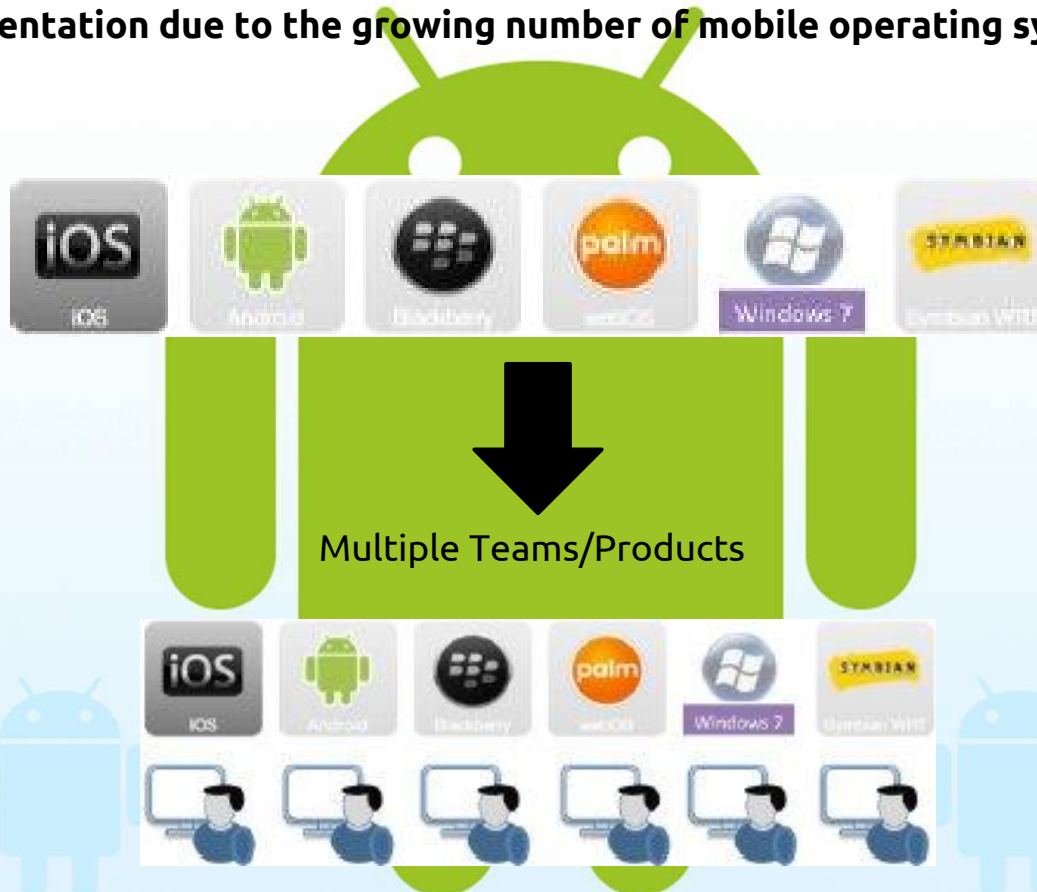




Cross plate-forme

Fragmentation due to the growing number of mobile operating systems



Cross plate-forme

Feature Fragmentation


Les fonctionnalités et capacités varient selon les plates-formes de périphérique. Cela signifie que si certains Androids et iPhones ont une boussole intégrées autres smartphones ne font pas. Cela pourrait signifier que les applications de navigation sur d'autres smartphones peuvent ne pas être en mesure de faire tourner des cartes dans la façon dont Android ou iPhone applications possible.



	 iPhone / iPhone 3G	 iPhone 3GS and newer		 OS 4.6-7	 OS 5.x	 OS 6.0+			
ACCELEROMETER	✓	✓	✓	✗	✓	✓	✓	✓	✓
CAMERA	✓	✓	✓	✗	✓	✓	✗	✗	✓
COMPASS	✗	✓	✓	✗	✗	✗	✗	✗	✗
CONTACTS	✓	✓	⚠	✗	✓	✓	✗	✓	✓
FILE	✗	✗	✓	✗	✓	✓	⚠	✗	✗
GEO LOCATION	✓	✓	✓	✓	✓	✓	✓	✓	✓
MEDIA (AUDIO RECORDING)	⚠	⚠	✓	✗	✗	✗	✗	⚠	✗
NOTIFICATION (SOUND)	✓	✓	✓	✓	✓	✓	✓	✓	✗
NOTIFICATION (VIBRATION)	✓	✓	✓	✓	✓	✓	✗	✓	✓
STORAGE	✓	✓	⚠	✗	⚠	✓	✓	✗	✗

Cross plate-forme

Developpement tools fragmentation

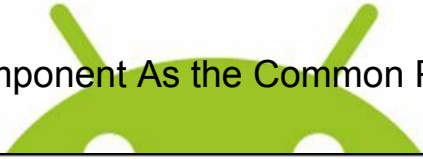


Mobile OS	Operating System	Software/IDEs	Programming Language
iOS	Mac only	Xcode	Objective C
Android	Windows/Mac/Linux	Eclipse/Java/Android Development Tool (ADT)	Java
BlackBerry	Windows mainly	Eclipse/JDE, Java	Java
Symbian	Windows/Mac/Linux	Carbide.c++	C++
WebOS	Windows/Mac/Linux	Eclipse/WebOS plugin	HTML/JavaScript/C++
Windows 7 Phone	Windows mainly	Visual Studio 2010	C#, .NET, Silverlight or WPF

Cross plate-forme

PhoneGap's Strategy for Cross-Platform Mobile Application

Browser Component As the Common Platform

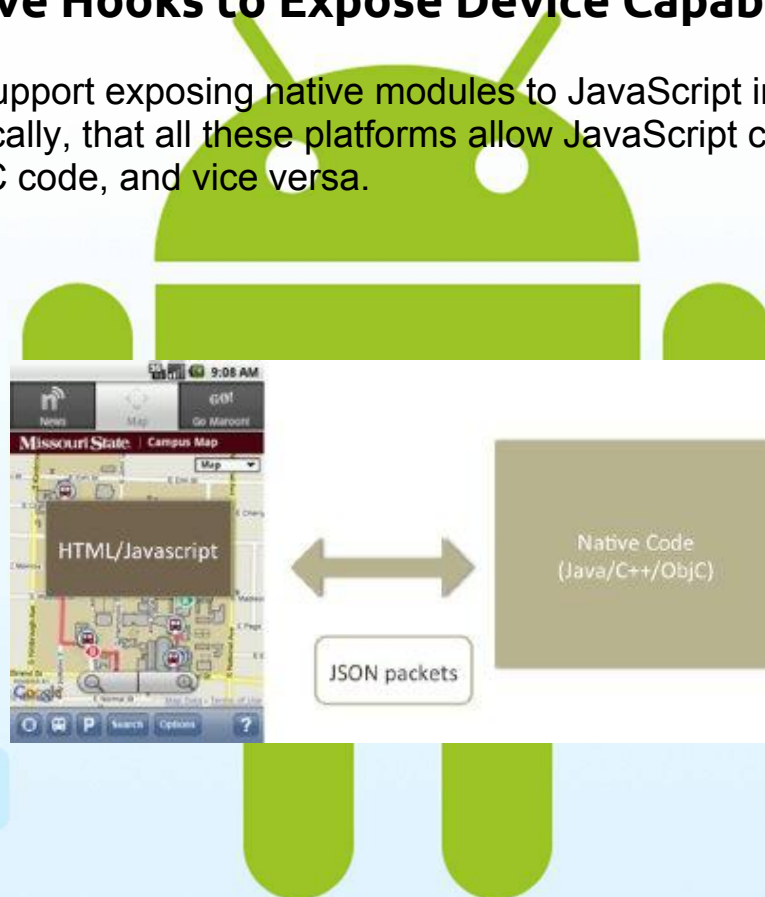


Mobile OS	Browser
Android	Webkit-based
iPhone	Webkit-based
BlackBerry 6.0 +	Webkit-based
Windows 7 Phone	IE 7-based *
WebOS	Webkit-based
Nokia	Webkit-based
BADA	Webkit-based

Cross plate-forme

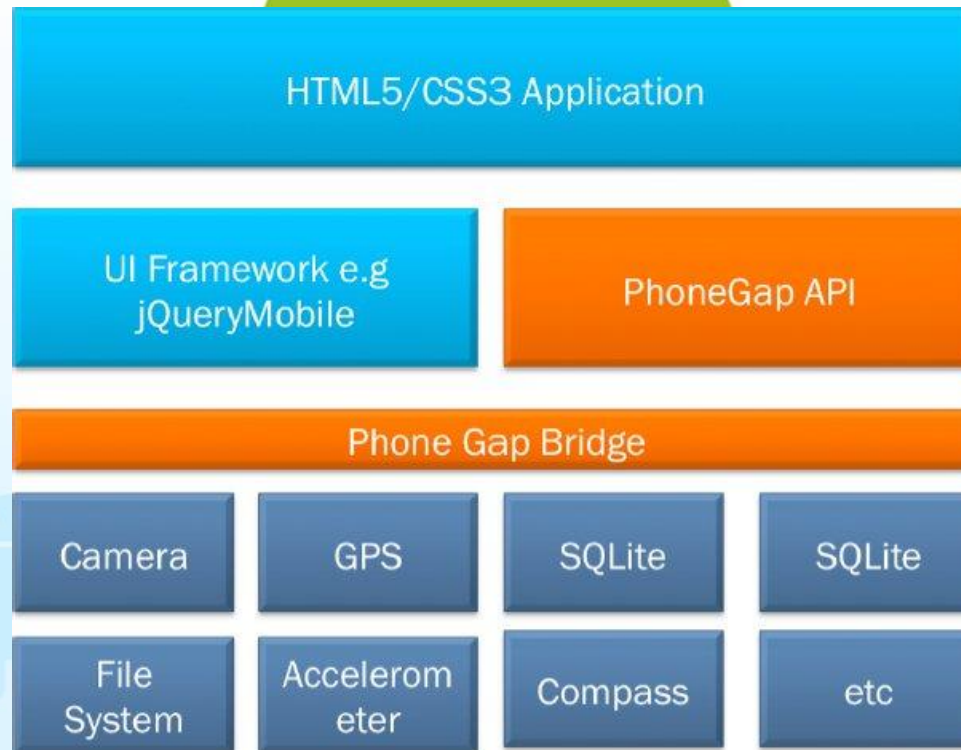
Native Hooks to Expose Device Capabilities

All these platforms support exposing native modules to JavaScript in the webview. This means, programmatically, that all these platforms allow JavaScript code to call native Java/C++/Objective C code, and vice versa.



Cross plate-forme

The PhoneGap framework is primarily a JavaScript Library that allows HTML/JavaScript applications to access device features. The PhoneGap framework also has a native component, which works behind the scene and does the actual work on the device (phone or tablet).



Cross plate-forme

Un projet PHONEGAP

Une page HTML + CSS : partie générique pour toute les plate-formes, comprend la fiche de style, le chargement des archives JS

Un loader pour la page (non générique) : ici le loader Android

Un projet avec les archives JS (non générique)

Cross plate-forme

Code source

```
<html>
  <head>
    <meta charset="utf-8" />
    <meta name="format-detection" content="telephone=no" />
    <meta name="viewport" content="user-scalable=no, initial-scale=1, maximum-scale=1,
minimum-scale=1, width=device-width, height=device-height, target-densitydpi=device-dpi"
/>
    <link rel="stylesheet" type="text/css" href="css/index.css" />
    <title>Hello World</title>
  </head>
  <body>
    <div class="app">
      <h1>Apache Cordova</h1>
      <div id="deviceready" class="blink">
        <p class="event listening">Connecting to Device</p>
        <p class="event received">Device is Ready</p>
      </div>
    </div>
    <script type="text/javascript" src="cordova-2.6.0.js"></script>
    <script type="text/javascript" src="js/index.js"></script>
    <script type="text/javascript">
      app.initialize();
    </script>
  </body>
</html>
```

Cross plate-forme

Chargement dans Android

```
package org.apache.cordova.example;

import android.os.Bundle;
import org.apache.cordova.*;

public class cordovaExample extends DroidGap
{
    @Override
    public void onCreate(Bundle savedInstanceState)
    {
        super.onCreate(savedInstanceState);
        // Set by <content src="index.html" /> in config.xml
        super.loadUrl(Config.getStartUrl());
        super.loadUrl("file:///android_asset/www/index.html");
    }
}
```

Cross plate-forme

Plugin Cordova (dans res/config.xml)

```
<cordova>
  <!--
  access elements control the Android whitelist.
  Domains are assumed blocked unless set otherwise
  -->
  <access origin="http://127.0.0.1*" /> <!-- allow local pages -->
  <!-- <access origin="https://org.examples" /> allow any secure requests to
example.com -->
  <!-- <access origin="https://org.examples" subdomains="true" /> such as above,
but including subdomains, such as www -->
  <access origin=".*" />

  ...
</plugins>
  <plugin name="App" value="org.apache.cordova.App" />
  <plugin name="Geolocation" value="org.apache.cordova.GeoBroker" />
  <plugin name="Device" value="org.apache.cordova.Device" />
  <plugin name="Accelerometer" ...
  <plugin name="Globalization" value="org.apache.cordova.Globalization" />
  <plugin name="InAppBrowser" value="org.apache.cordova.InAppBrowser" />
</plugins>
</cordova>
```

Cross plate-forme

Configuration du projet

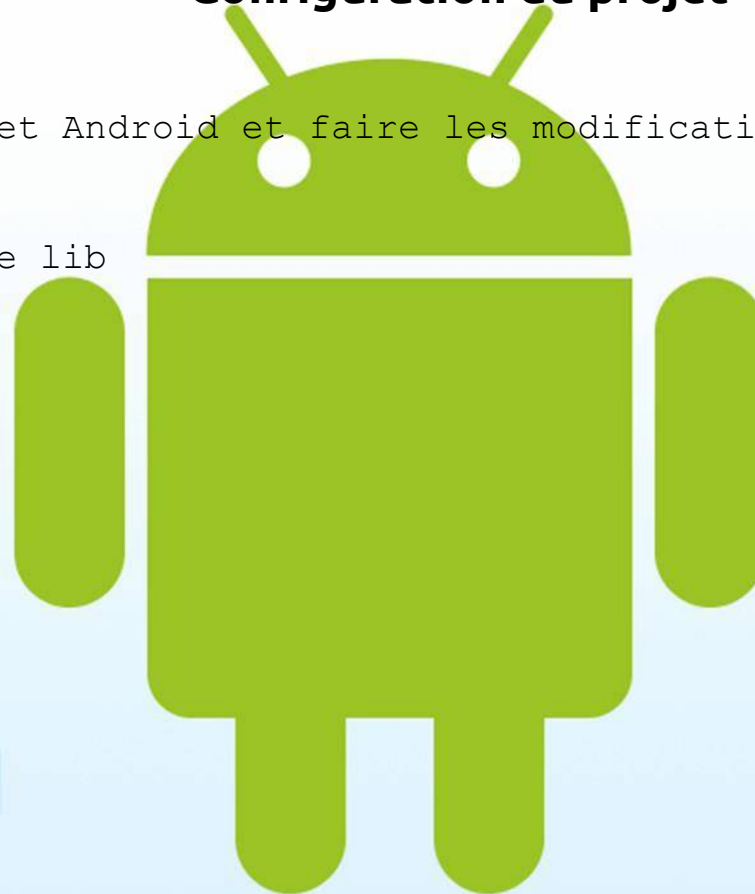
Commencer un projet Android et faire les modifications suivantes :

Libs à la place de lib

Jar Cordova

JS Cordova

Config.xml



Cross plate-forme

<http://docs.phonegap.com/en/2.6.0/index.html>

