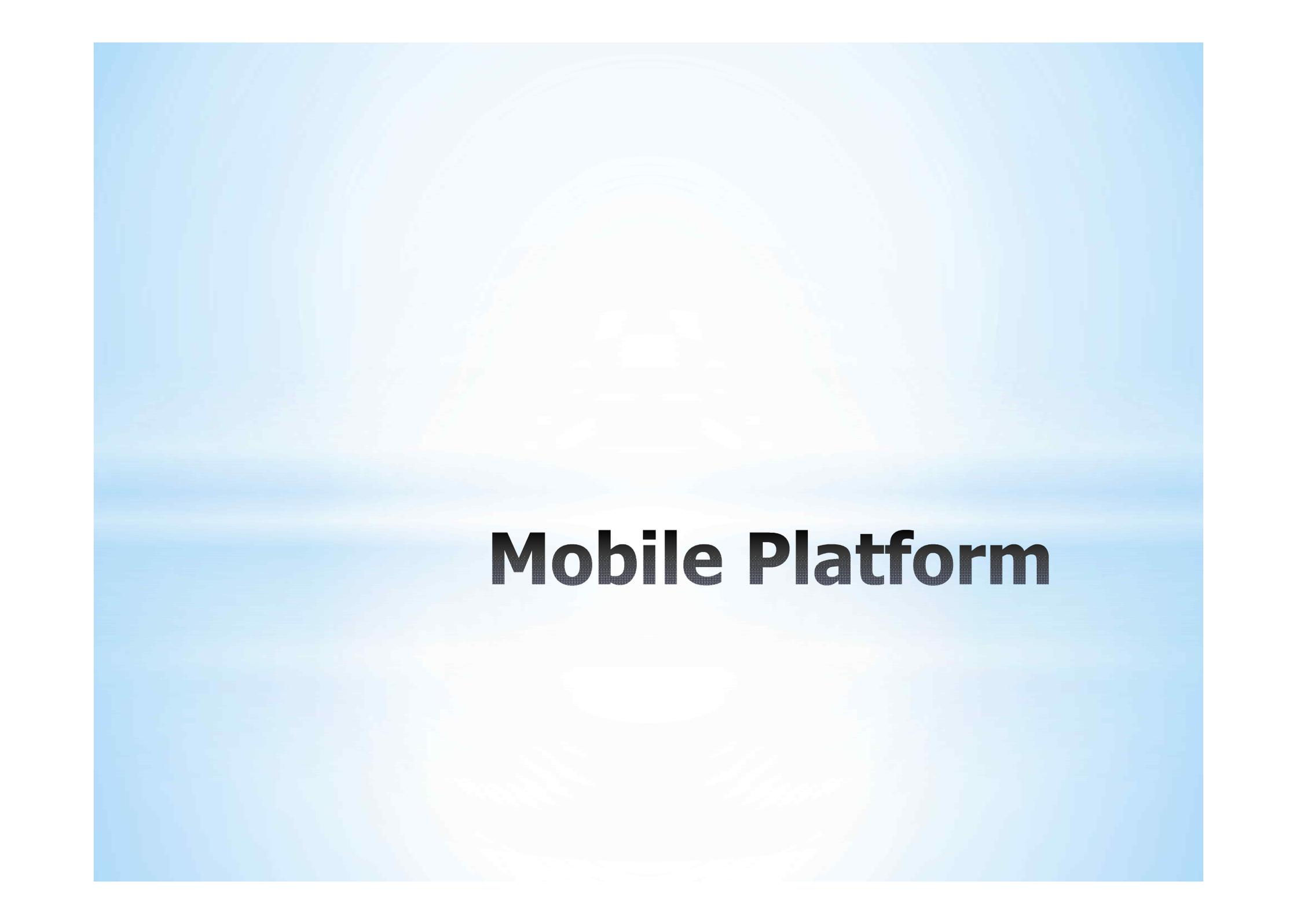




Trend of Mobile Platform & Application

Contents

- Mobile Platform
 - Overview
 - Evolution Mobile Platform
 - ✓ Step 1 ~ Step 3
 - Market Share
 - New Platform
- Mobile Application
 - Evolution Mobile AppStore
 - ✓ Stage 1 ~ Stage 7
- Summary



Mobile Platform

Overview

- Mobile Platform
 - Provide **Runtime Environment** and **Development Environment** to Mobile Application
 - Produce a virtuous circle by providing API(Application Program Interface) to Application and activating Mobile Appstore.

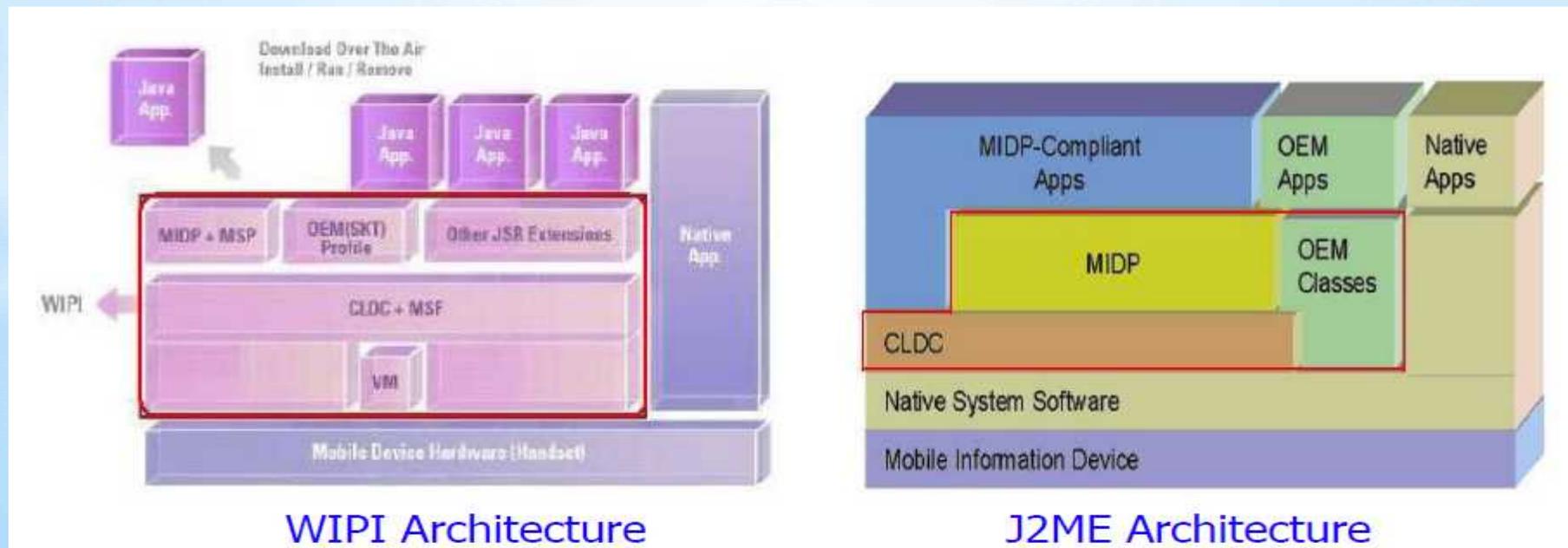


Why need mobile platform?

- Fast application development
 - Many sophisticated applications are needed
 - Easy to use application library interface
 - Application Development in PC environment
- One source multi use
 - Use same source for different model(Time to develop/market)
- S/W reliability
 - Depends on platform reliability

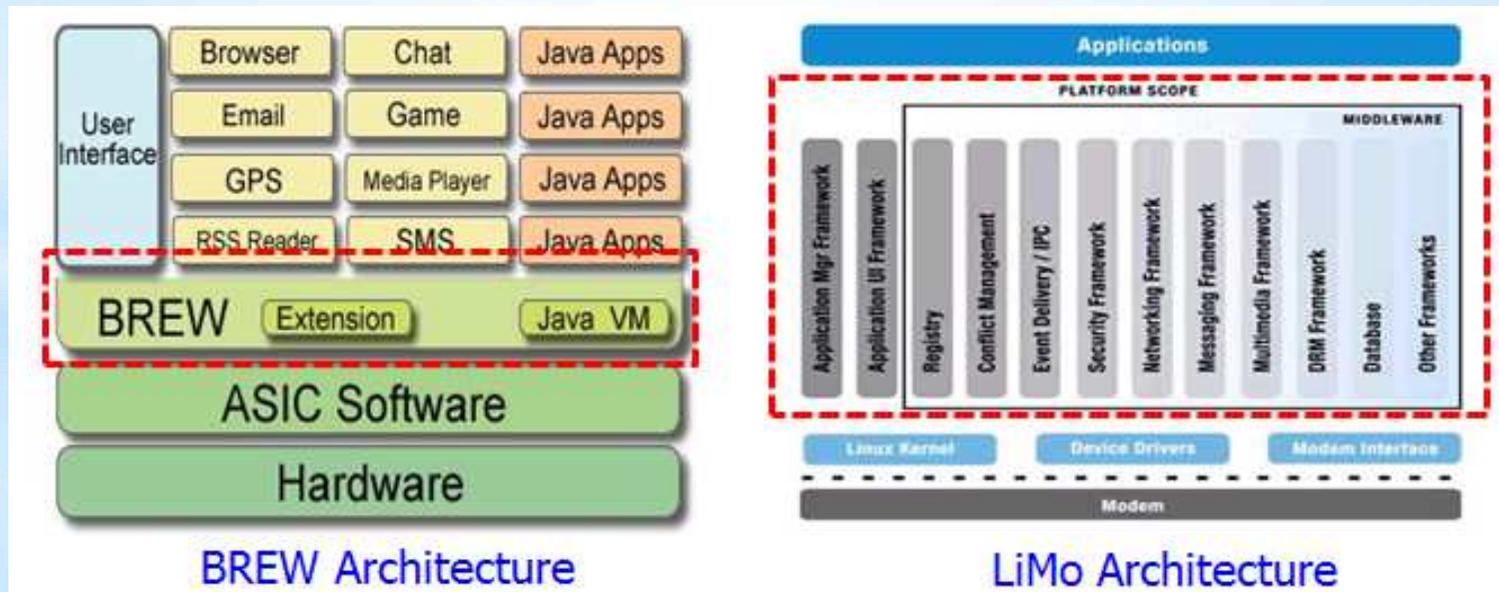
Evolution Platform : Step 1

- Past Platform
 - OS Wrapper (OS system call Platform API)
 - Runtime Environment(for only download application)



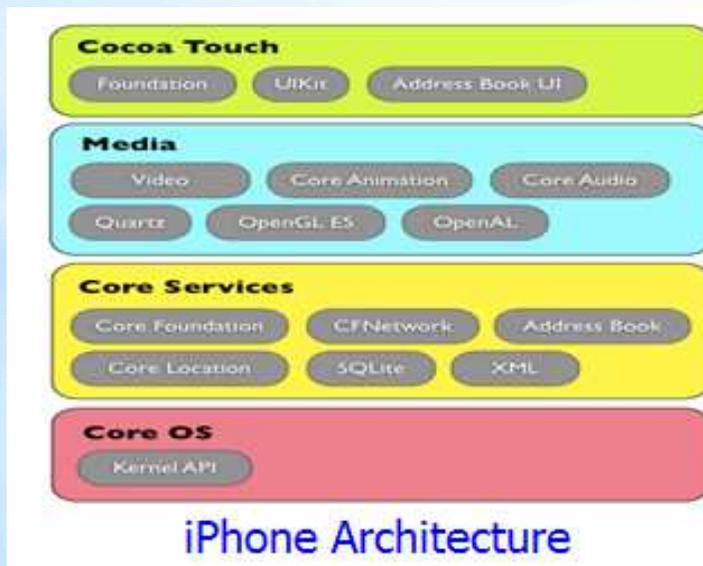
Evolution Platform : Step 2

- BREW, LIMO
 - The past + [Event Handling, Memory Management, File System, DB]
 - UI Framework + widget
 - Toolkit (Emulator, Debugging Tool)

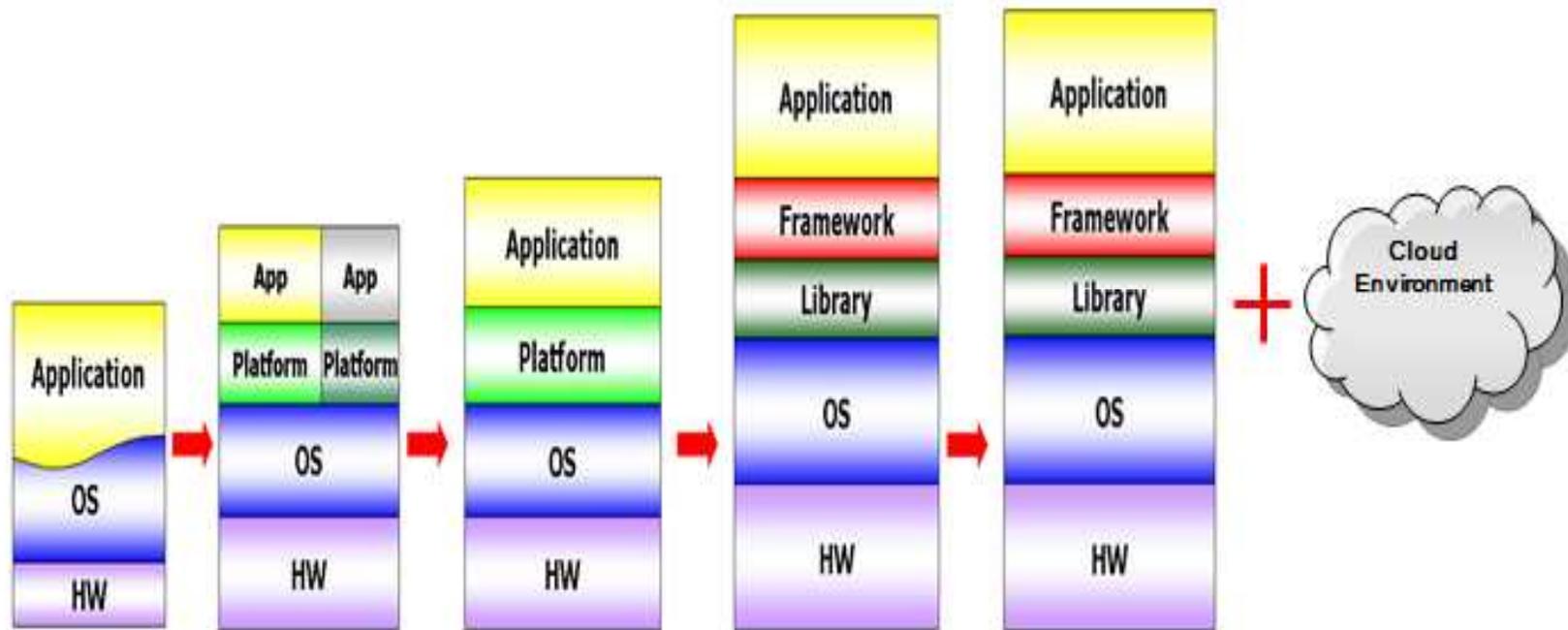


Evolution Platform : Step 3

- Current Platform
 - Past Platform + Multimedia Enhancement(OpenGL/ES)
 - Web Service optimized in Mobile
 - Mobile market support(Appstore, Android Market(Play)..)



Mobile Platform Evolution



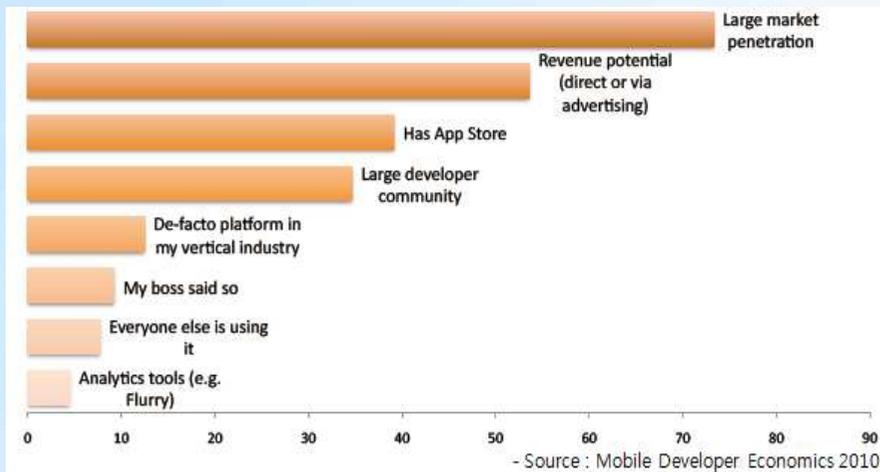
Vanilla Phone

Feature Phone

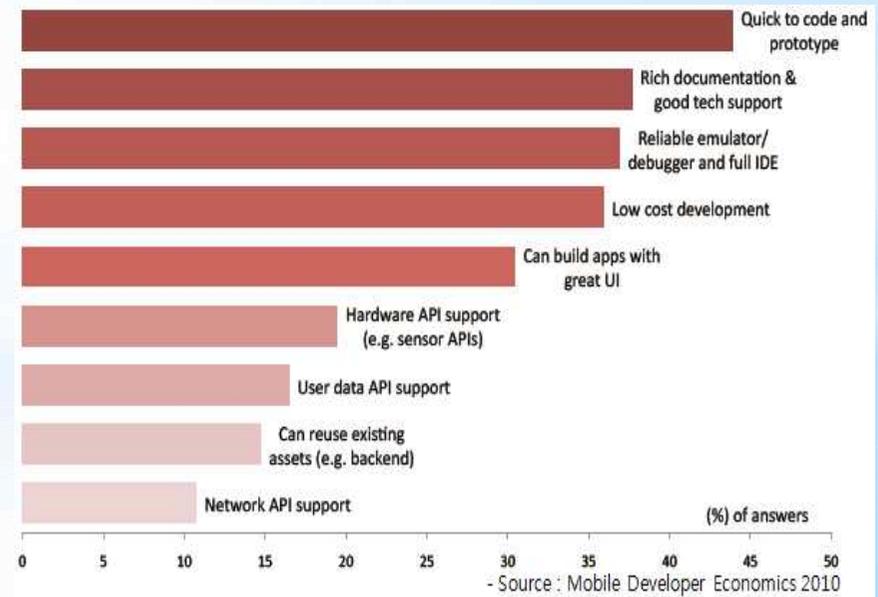
Smart Phone

Which Platform Do you select ?

Considering from Marketing View

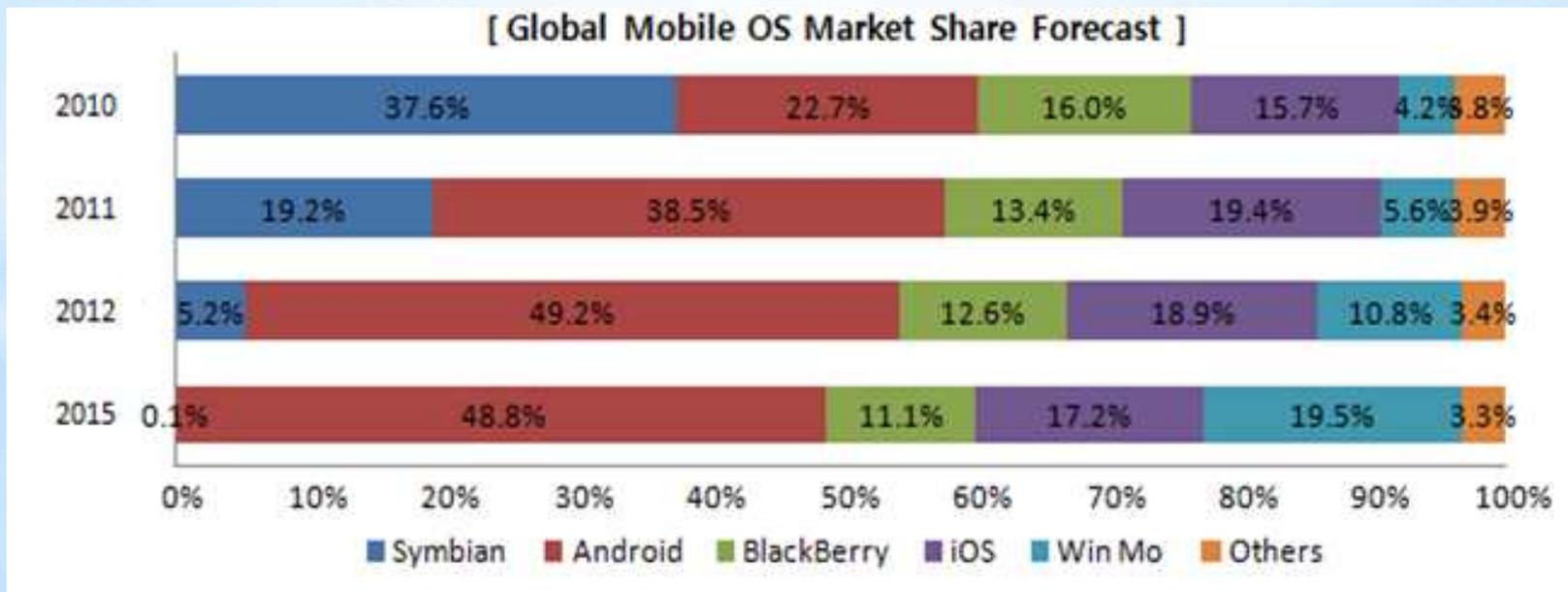


Considering from Technical View



Mobile Platform Market Share

- Gartner reports Android will be half on market share at 2012.
- Symbian and Blackberry will be down and Android will take it.



- Source :
Gartner(2011,04)

Developer Preference on Mobile Platform

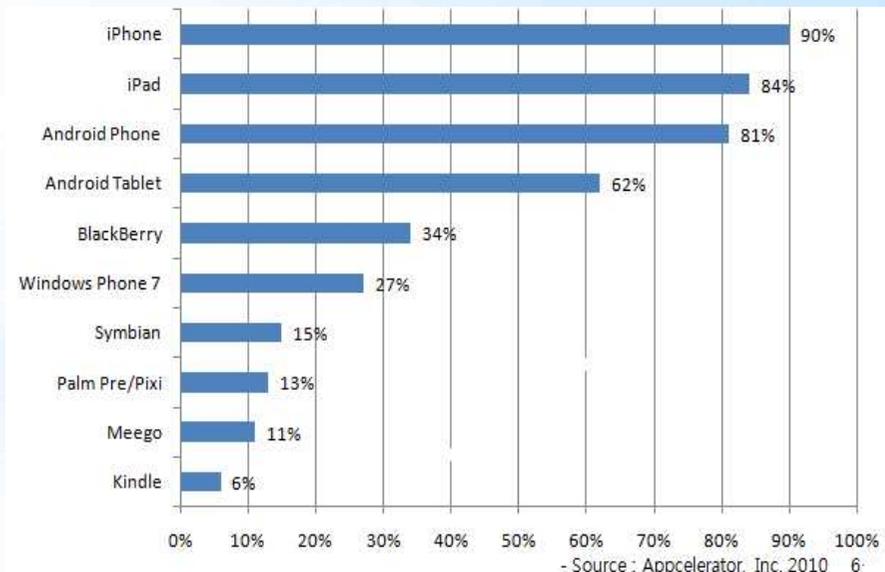
- Developer give good score on iOS.
- Android has strength to OS capability and openness.

Evaluation on Platform By Developer

	iOS	Android	BlackBerry	Other
Has the best app store/market/commerce capability	89%	10%	0%	1%
Offers most 'discoverability' for my apps	75%	21%	1%	3%
Has the biggest market for my consumer apps	85%	10%	2%	3%
Has the biggest market for my business apps	65%	11%	21%	4%
Has the most capabilities as an OS	39%	55%	1%	6%
I see the platform as being most secure	58%	25%	12%	6%
The most "open" platform on the market	8%	86%	1%	5%
The best devices run this OS	64%	32%	1%	2%
This OS has the best near-term outlook	78%	16%	2%	4%
This OS has the best long-term outlook	40%	54%	1%	4%

- Source : Appcelerator, Inc. 2010 6

Most interested platform for Developer

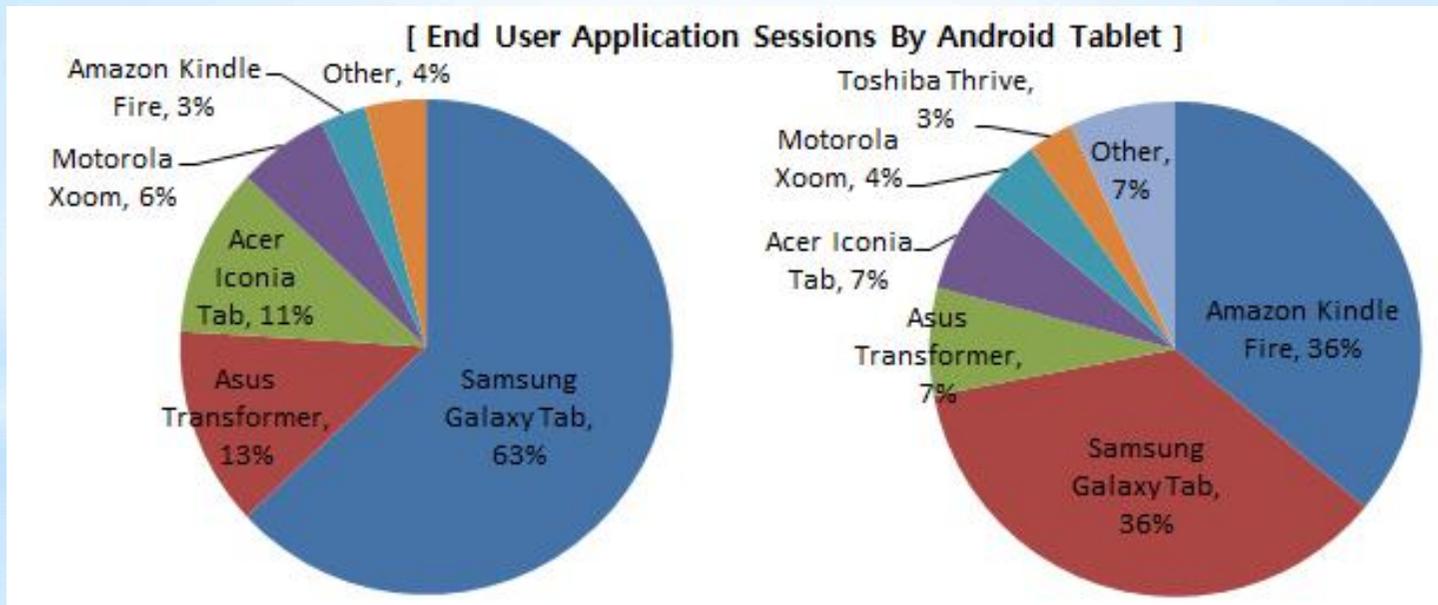


- Source : Appcelerator, Inc. 2010 6

New Platform : Kindle Fire

- Nov, 2011 : Kindle Fire release & over 6 millions sold.
- Target : Consumer with Digital Contents.

No more just replacement of PC Desk Top.



Nov, 2011

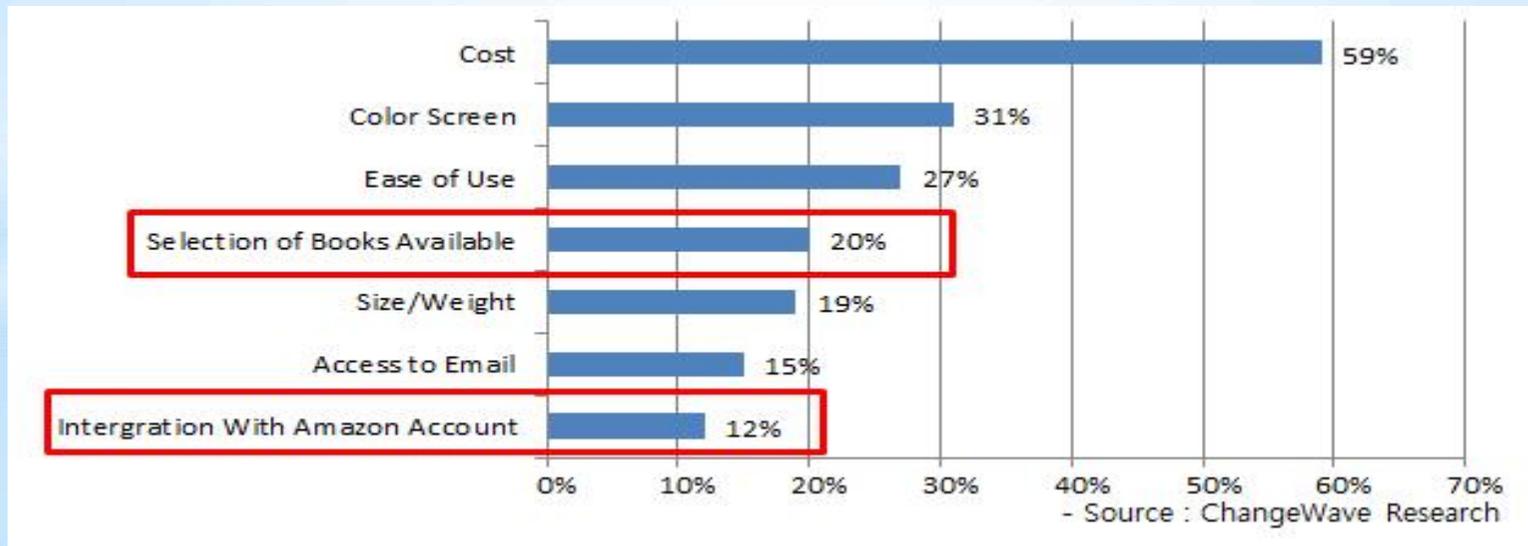
Jan, 2012

-Source : Flurry

Strength of Kindle Fire

- Amazon : Plenty of Digital Contents + Distribution experience
- Amazon Cloud Infra : Cache , Silk Browser
- Low Price for only Amazon Contents

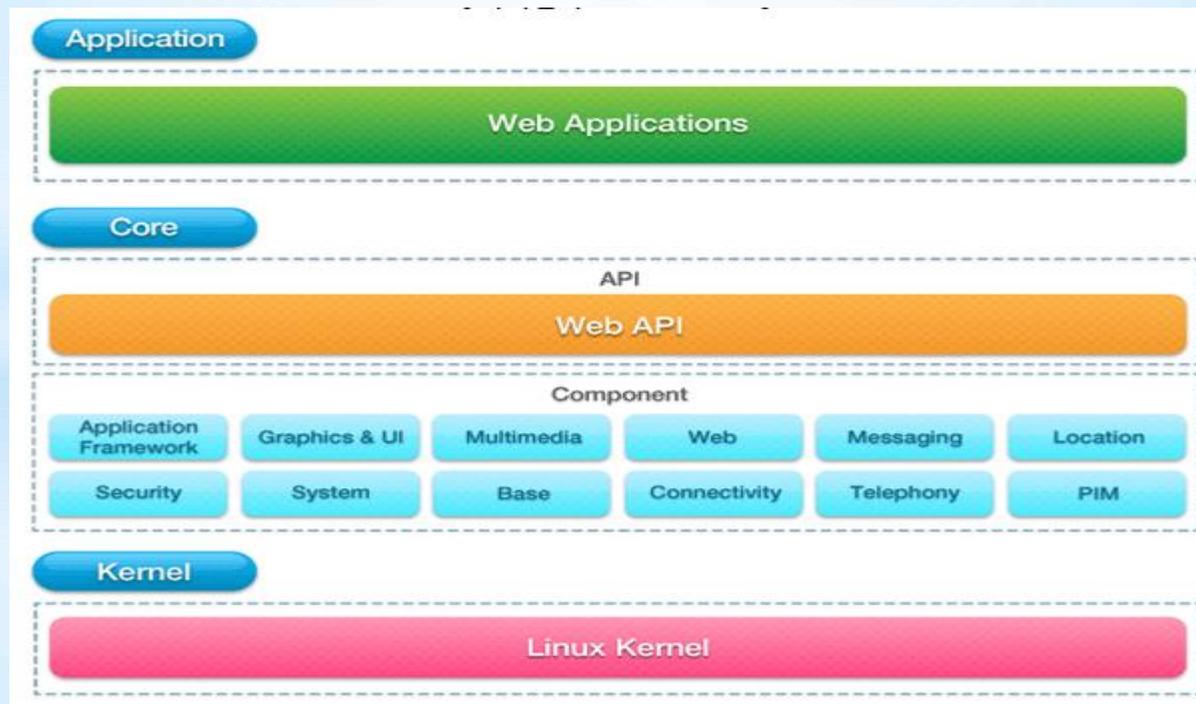
What points are good for user ?



New Platform : Tizen

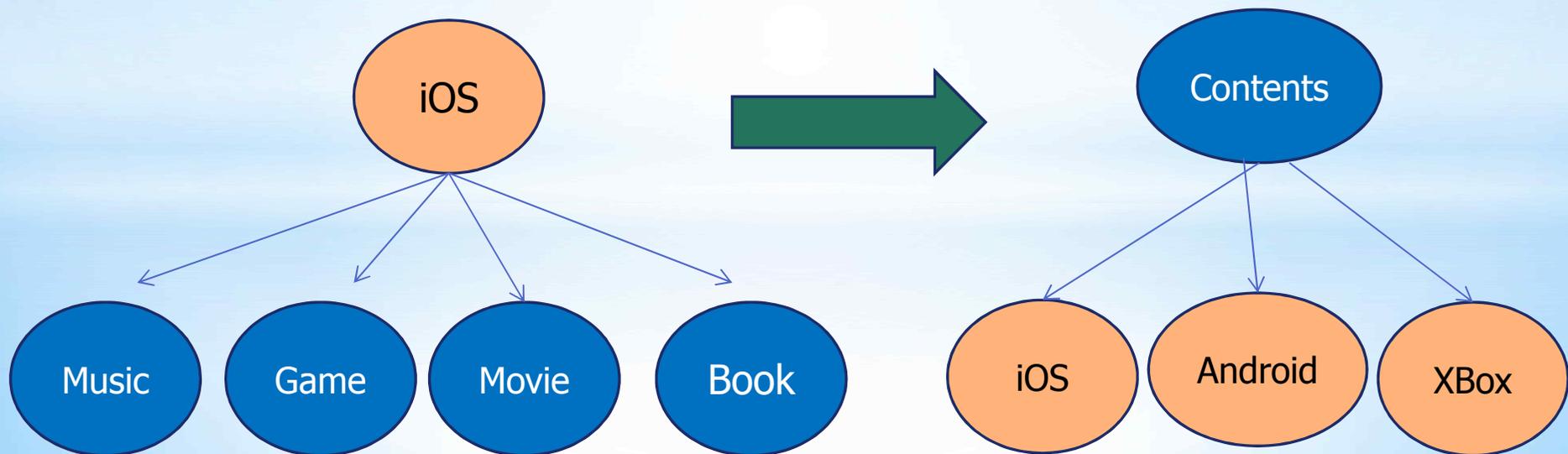
- LiMO, Linux Foundation + Samsung, Intel
- Jan, 2012 : open source , SDK released
- HTML 5 , Web UI Framework
- General OS : Smartphone, Tablet, Auto, TV

Tizen Architecture



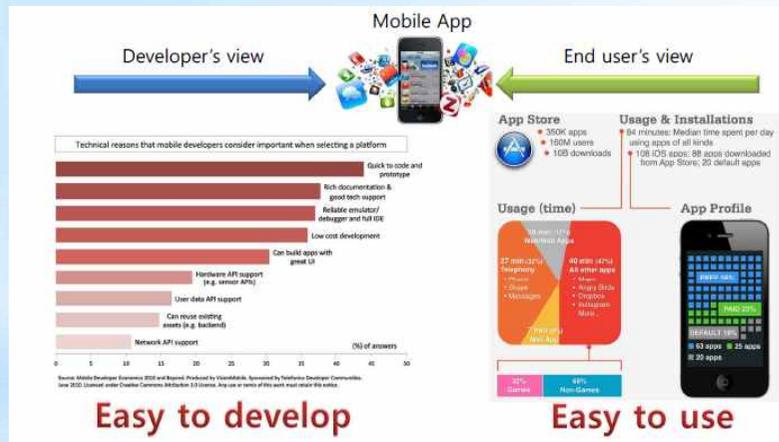
Future : Mobile Platform

- Support Cloud Service
- Power Shift from Platform to Contents
 - User buy devices not to use platform but to get Service like Game, Reading book, listening music and to get same UI/UX in all mobile platforms on using Netflix, Facebook, Skype ...

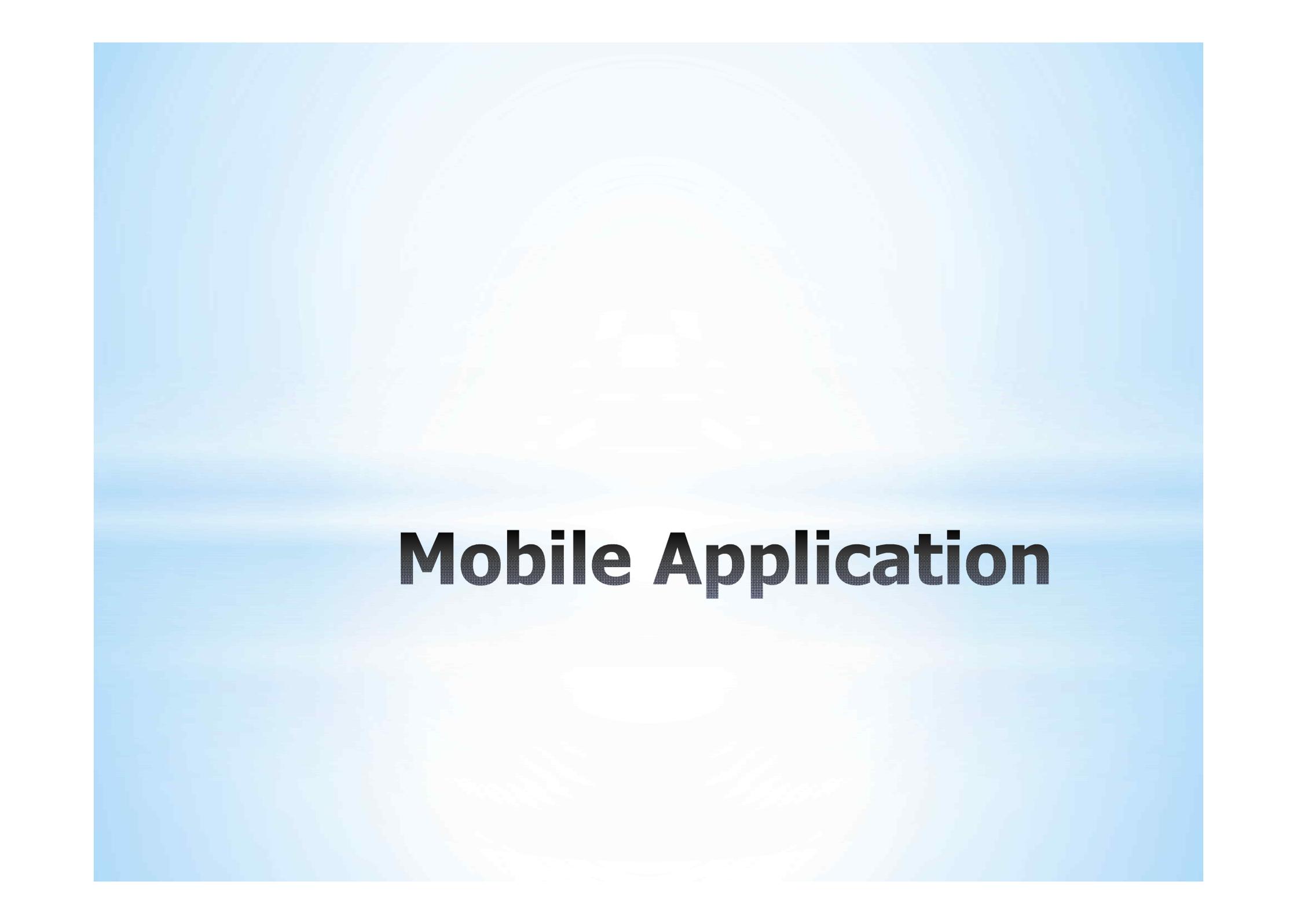


Future : Mobile Platform (Cont)

- Web as an Application Platform
- HTML5 : Device API, Widget API, Web App API



Web as a Cross Mobile Platform !!!



Mobile Application

Overview

- **Mobile applications**

- Called **mobile apps**, are software applications, usually designed to run on smartphones and tablet computers.
- They are available through application distribution platforms, which are typically operated by the owner of the mobile operating system, such as the Apple App Store, Google Play, Windows Phone Marketplace and BlackBerry App World.

- **Appstore**

- Called Application Store, are the market where buy or sell mobile applications by uploading or downloading them.
- Apple first use , Amazon also use Appstore for their own market.

Evolution of AppStore : Step 1

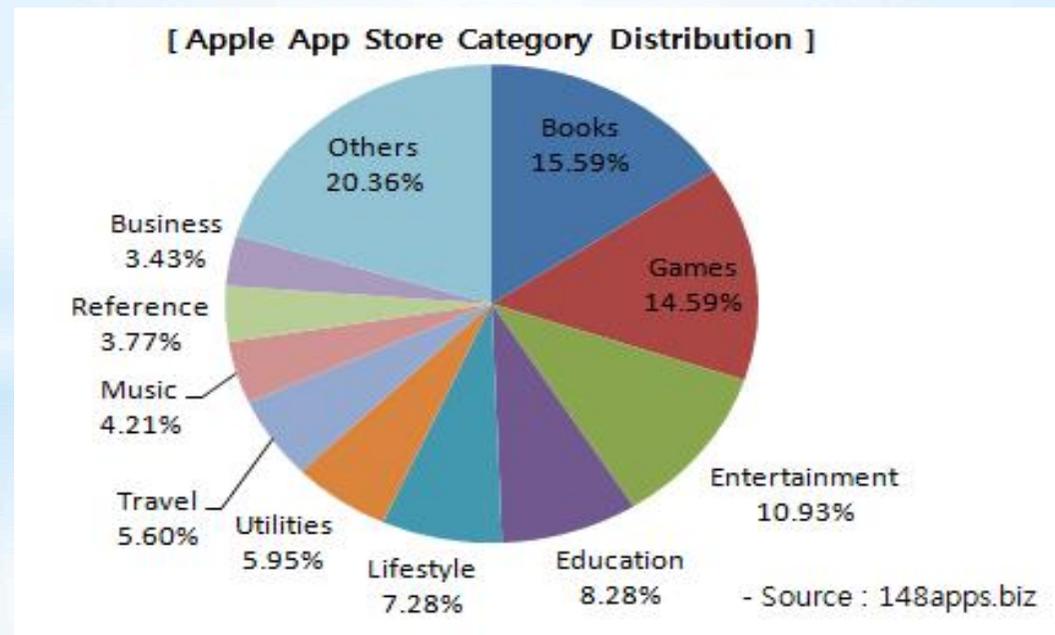
- Chaos

- No standard and Guideline for Mobile Service and eco-system
- Carrier is King : Walled Garden
- NTT DoCoMo : i-Mode, SKTelecom: mPlayon



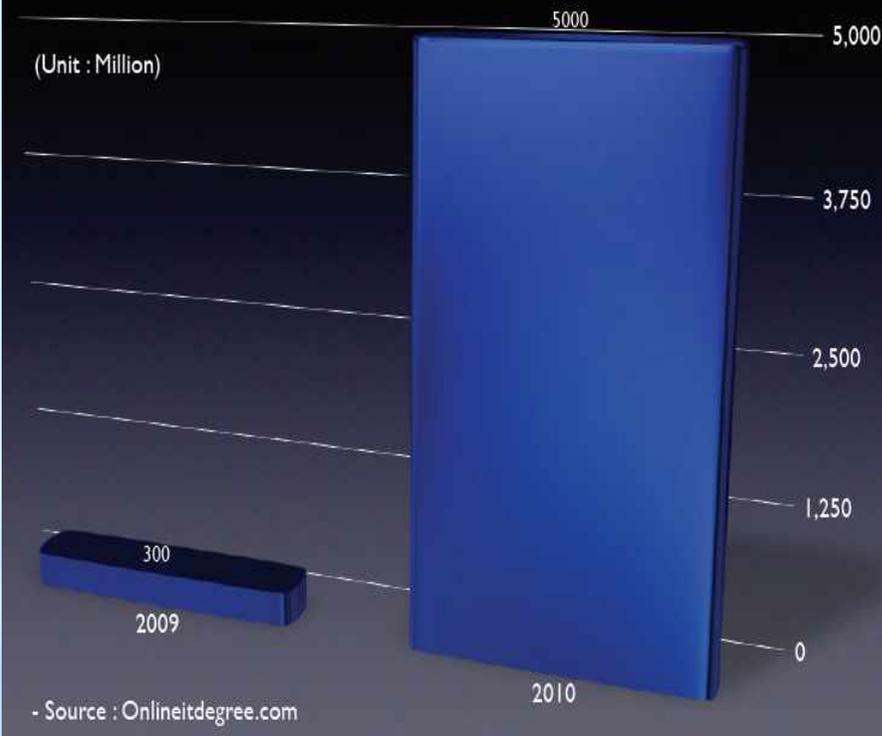
Evolution of AppStore : Step 2

- New Concept AppStore
 - Apple AppStore : IOS , SDK, BM
 - New Guideline : Contents Distribution, Payment, Ad system
 - broad variety of applications

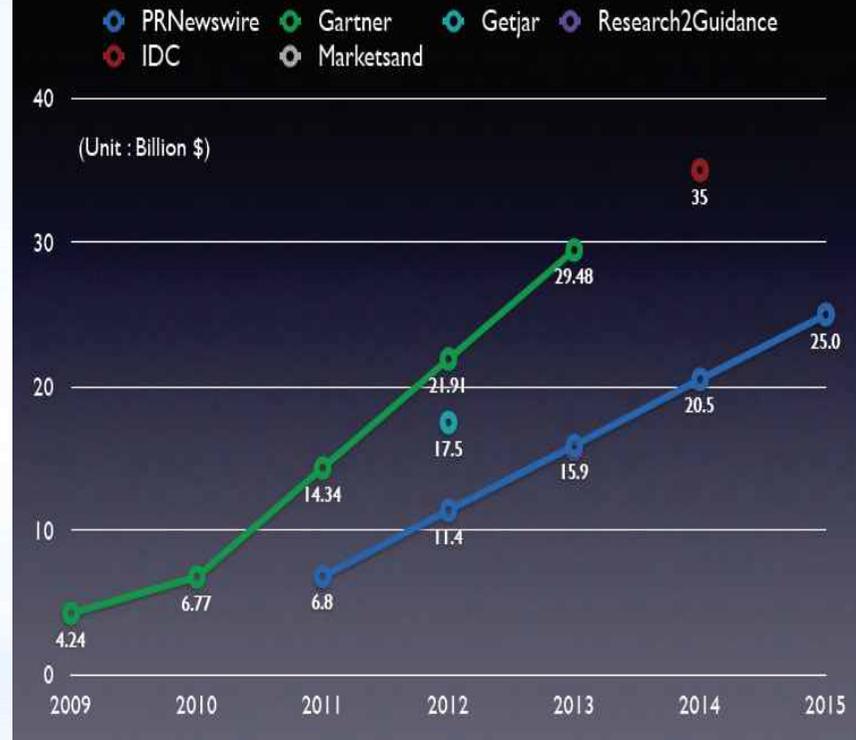


AppStore Bright Prospect

Mobile App Downloads By Year



Global Mobile App Store Revenue



Evolution of AppStore : Step 3

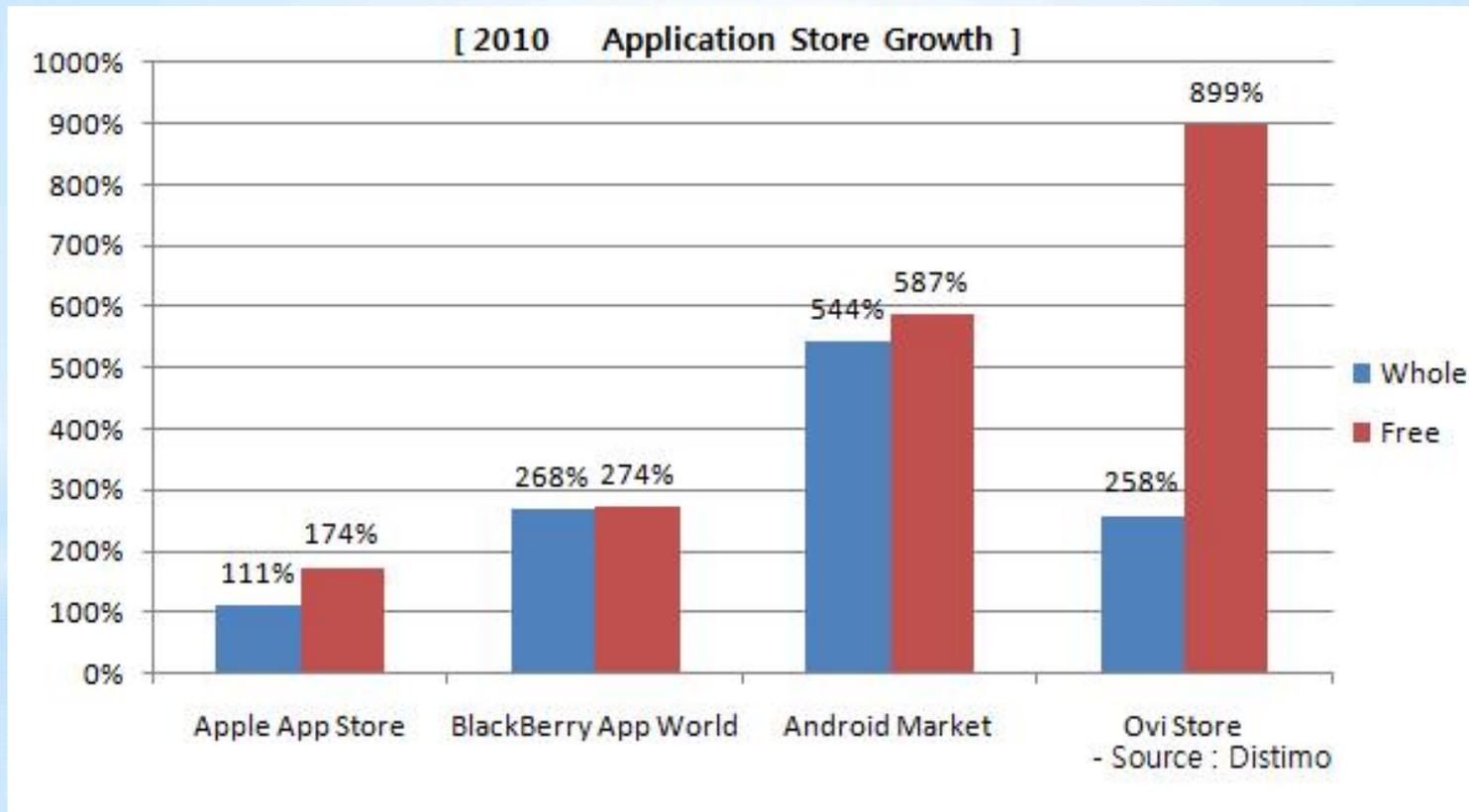
- Everyone wants their own App store
 - 113 App stores
 - 452 mobile company



- Source : Distimo

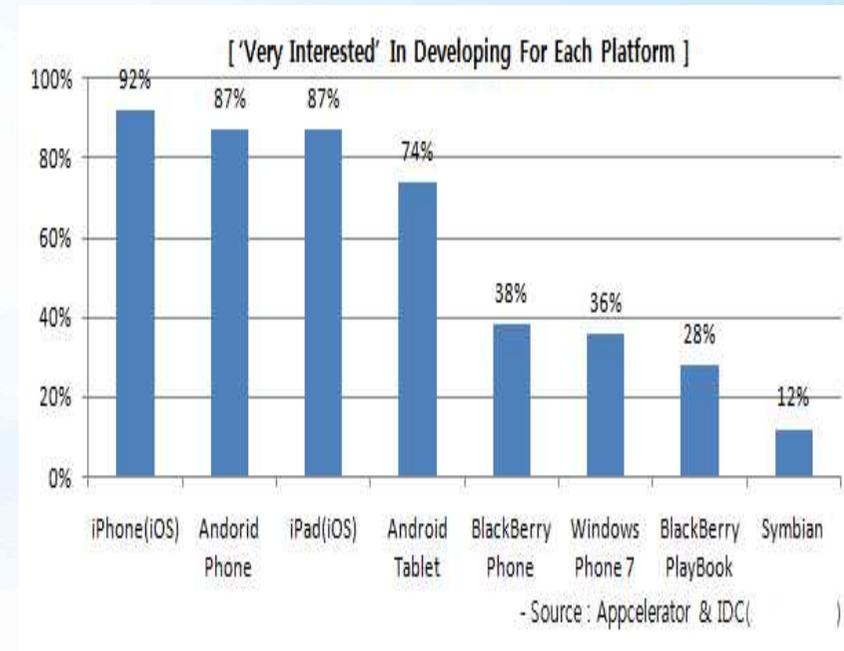
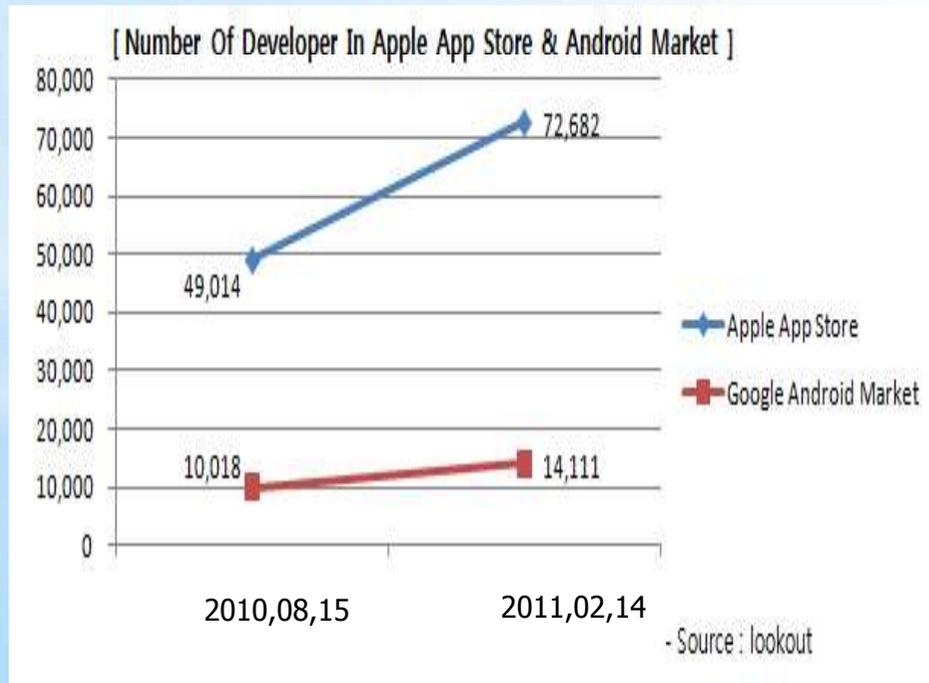
Evolution of AppStore : Step 4

- Survival : Apple, BlackBerry, Android, OviStore



Developer Preference

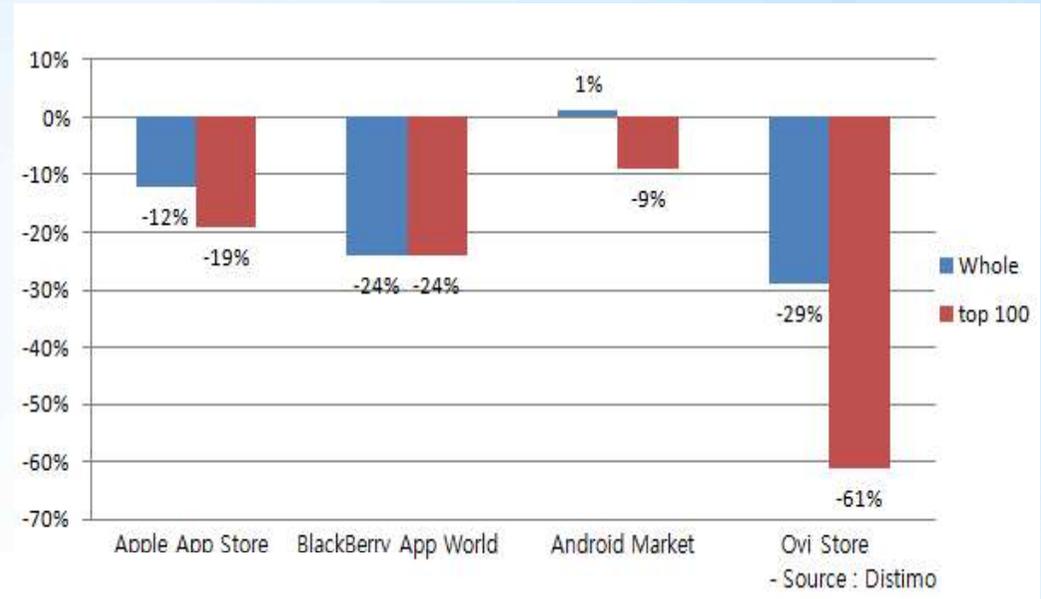
- Prefer Iphone, Ipad to Android.
- Symian drops sharply.



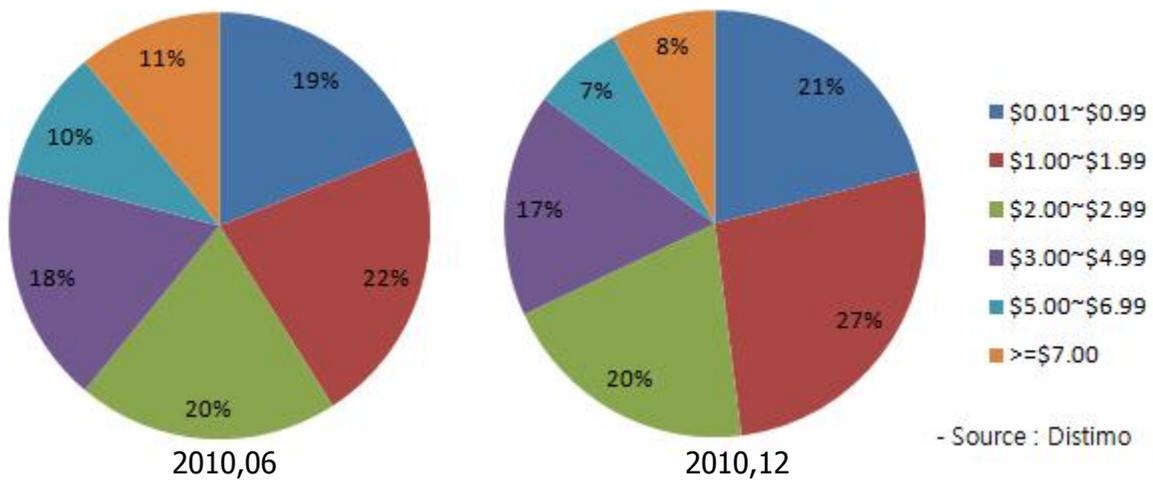
Evolution of App Store : Step 5

- Application Price fall down.
- Mobile App Revenue decrease.

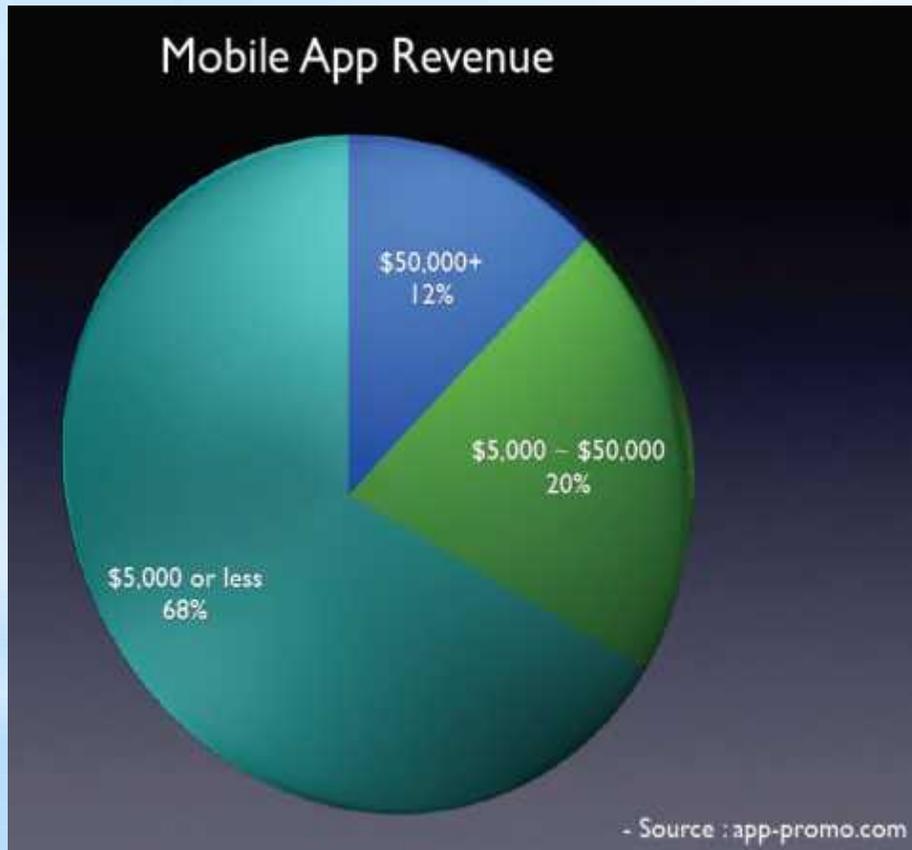
2010,6 ~ 12 Mobile Application Average Price



Mobile Application Price Distribution



Mobile App Struggle



Evolution of App Store : Step 6

- **Need new Smart Business Model (BM)**

- Free

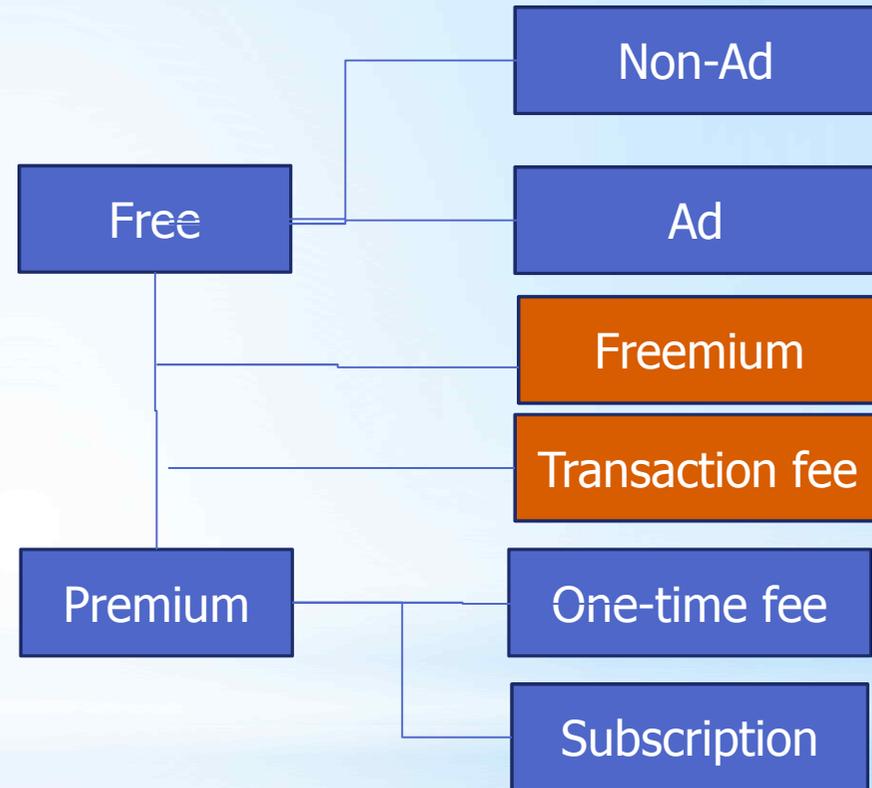
- Non-Ad : Guide to Premium
- Ad : Click Ad in free download app

- Premium

- One-time fee : Download App
- Subscription : News, Magazine, Video

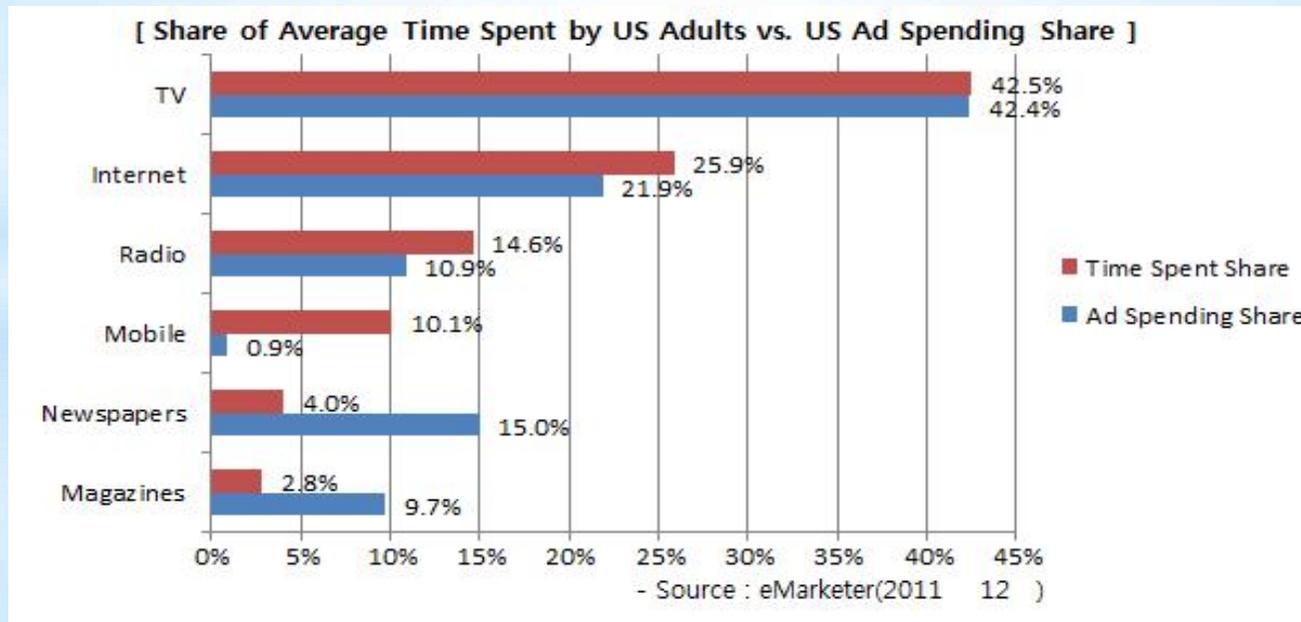
- Freemium : in-app purchase

- Transaction fee : Pinterst



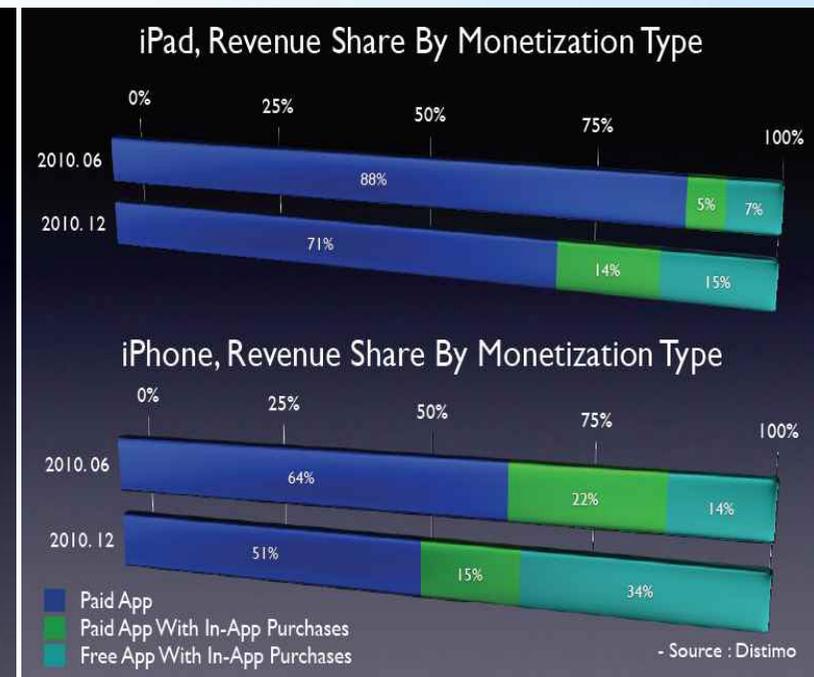
AD is not ready for Mobile BM

- Legacy Internet Service BM
 - Good Service → High Traffic → Ad
- Mobile BM
 - Focused on App download from App store
 - Users are not welcome to mobile Ad yet. → Not matured Market



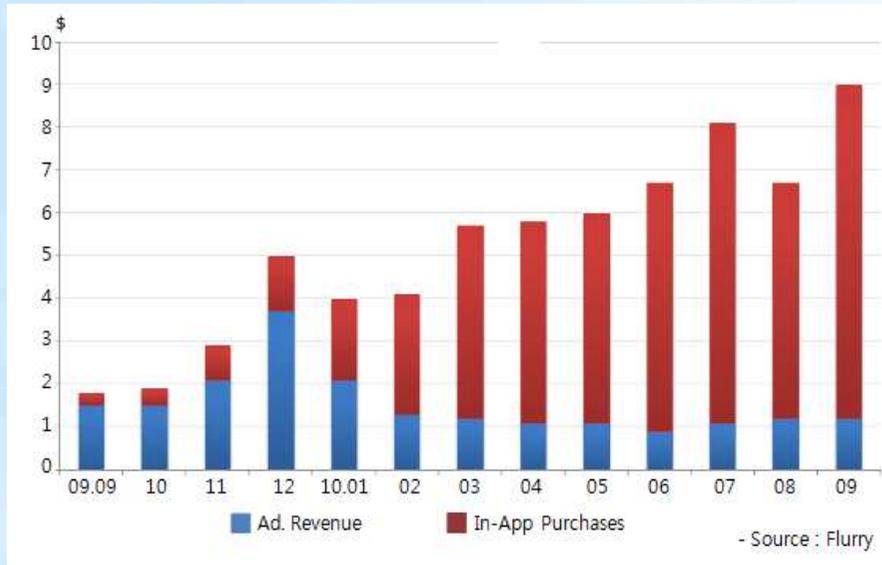
Moves to Freemium

- Free + Premium
- Based on In-App Purchase System(IAP)
- Download and Use Free Application + buy other product in the Application.
- Popular in Game

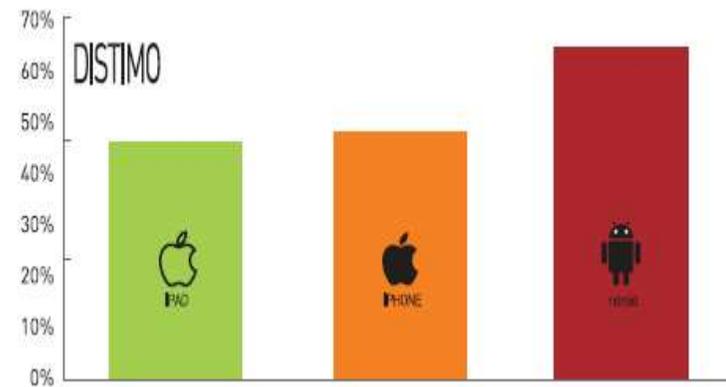


Moves to Freemium (Cont)

Revenue Shift Advertising to In-App Purchase



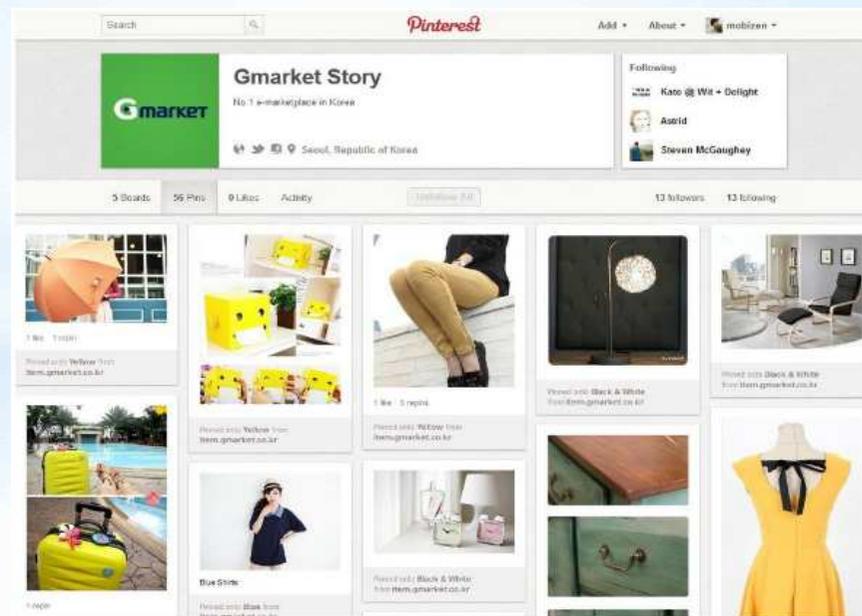
Ratio of Freemium Revenue in Appstore



-source : Distimo (2011,12) , High ranked 200 apps

Transaction fee BM

- Pinterst
 - Content sharing service that allows people to “pin” images, videos and other objects.
 - Connect to Shopping mall as a gift
- Connect to Amazon, iTunes

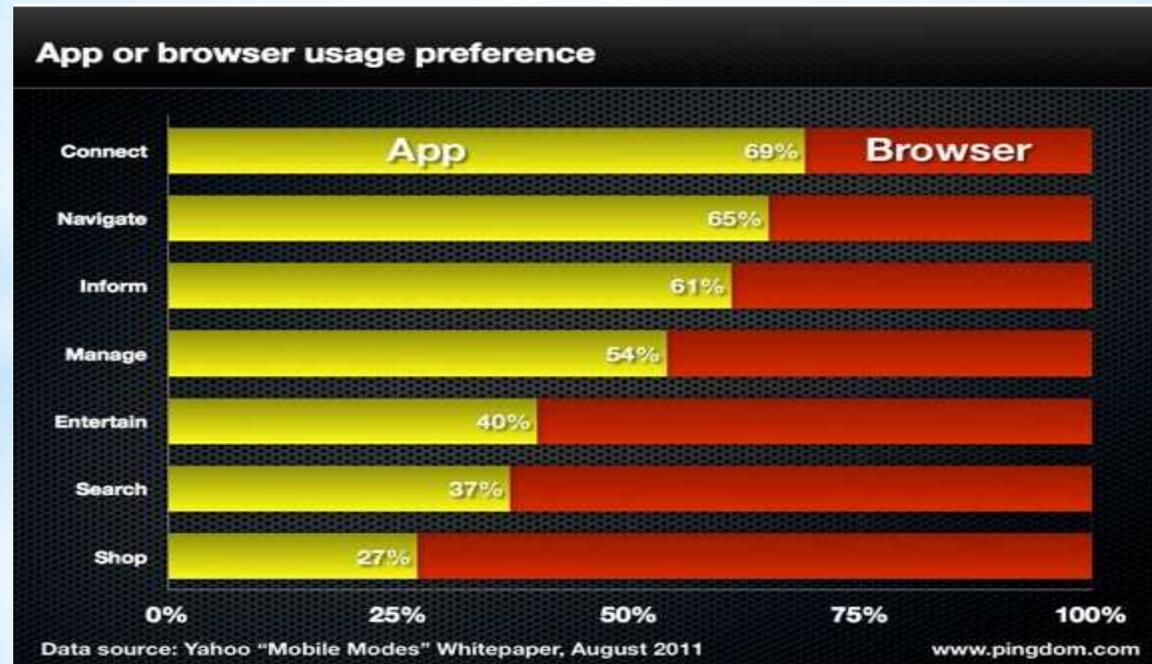


Evolution of AppStore : Stage 7

- New AppStore and Mobile Web App bring up.
- New AppStore
 - Amazon Appstore
 - ✓ e-commerce market know-how
 - ✓ Amazon search, review, recommend system
 - ✓ Easy to use and familiar UI with User
 - 3rd Party Appstore
 - ✓ Focused Game, Browser
 - ✓ niche market with specified application
 - ✓ Carrier to cooperate with 3rd Party Appstore
 - ✓ Lima, Bandroid, Opera Mobile Store

Mobile App vs Mobile Web Traffic Share

- Mobile App : Connect(IM,email), Navigate, Inform(news,blog), Manage(online banking, schedule)
- Browser : Shop(best deal site), Search(using search engine), Entertain(listening,playing media online via phone)



Mobile Web App vs Native App

Native:

- An application specifically designed to run on a device's operating system and machine firmware
- It typically needs to be adapted/adjusted for different devices

Web:

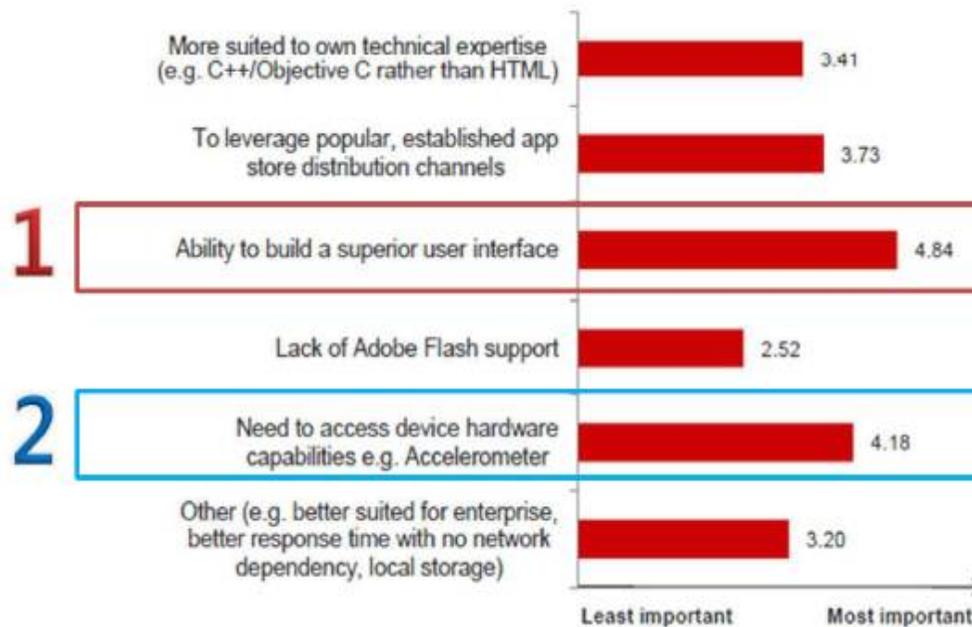
- An application in which all or some parts of the software are downloaded from the Web each time it is run
- It can usually be accessed from all web-capable mobile devices



Why Native App ?

- User Interface and hardware capabilities dominate demand for native interface

Top reasons for only offering a native application (Total: 38)



Average responses based on a qualitative scale of 1 (least important) - 6 (most important)

Top native app content categories

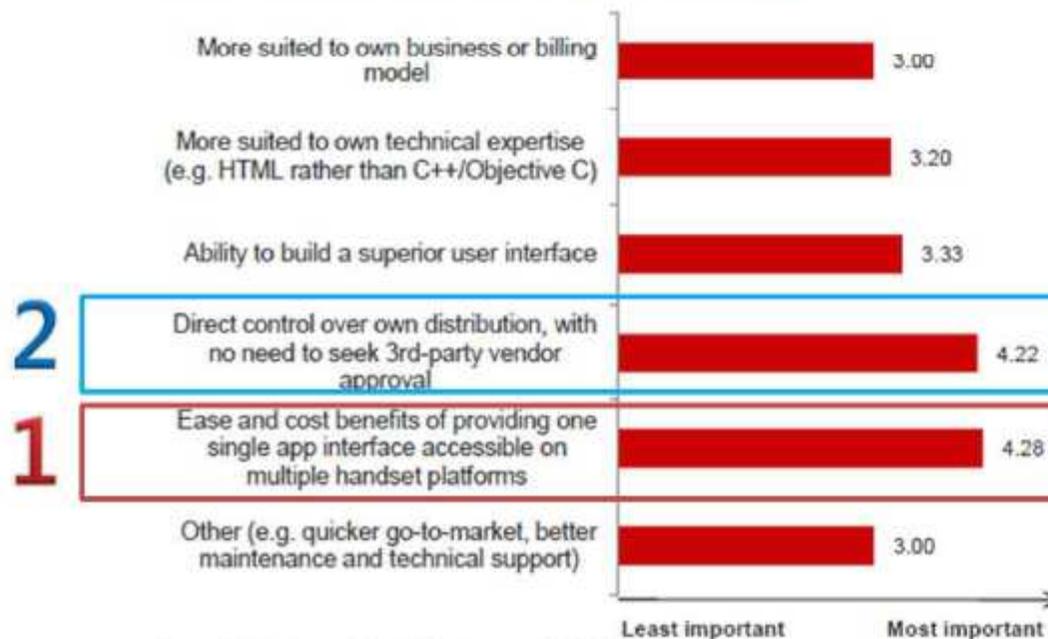
- Games
- Social networking
- Lifestyle and entertainment
- Technology & gadgets
- Travel & local

Source: GIA native vs. web app industry survey, Feb-Mar 2010

Why Mobile Web App?

- Distribution control and cost advantages are key drivers behind web app development

Top reasons for only offering a web application (Total: 19)



Source: GIA native vs. web app industry survey, Feb-Mar 2010

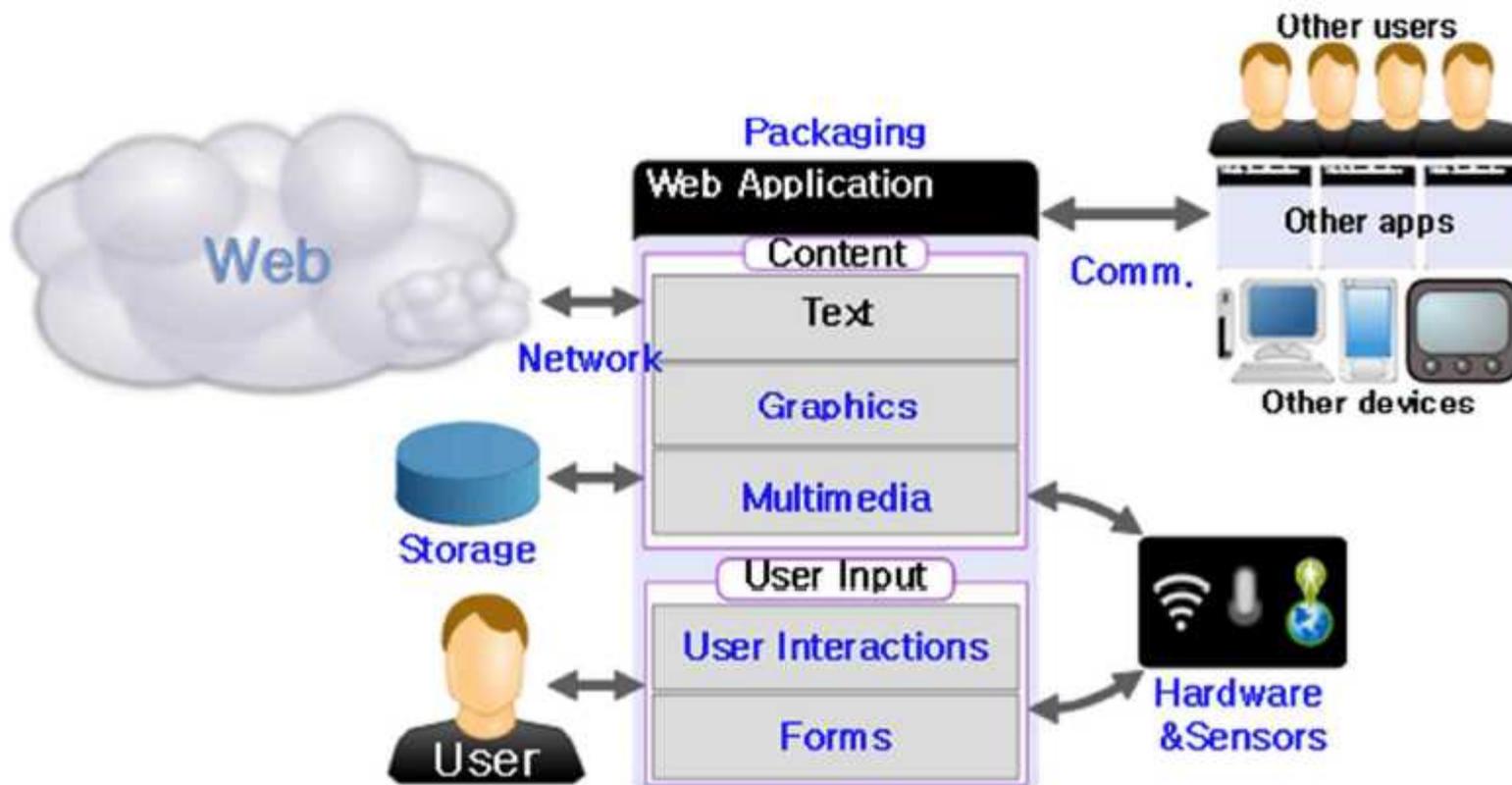
Average responses based on a qualitative scale of 1 (least important) - 6 (most important)

Top web app content categories

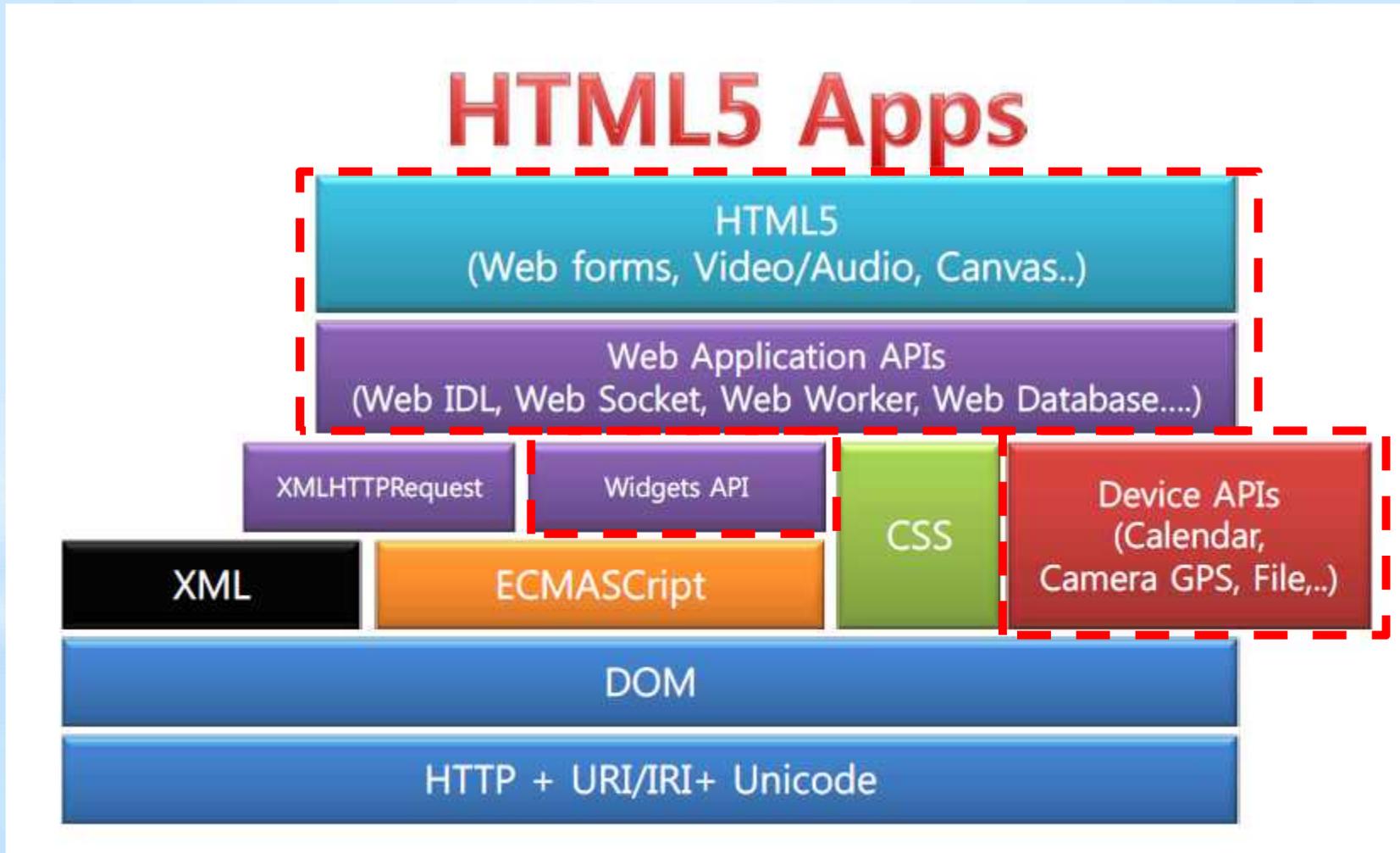
- News and weather

Web as an Application platform

- Standards for Web applications on Mobile
 - <http://www.w3.org/2012/02/mobile-web-app-state/>

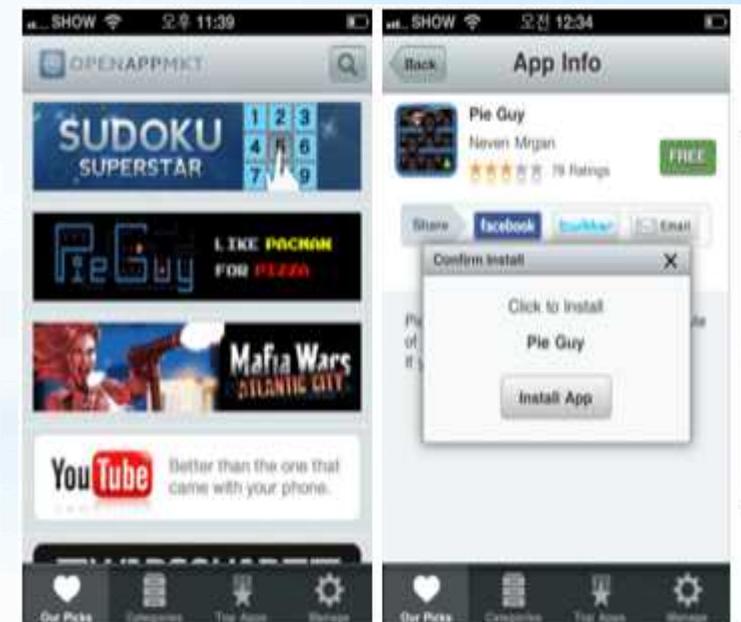
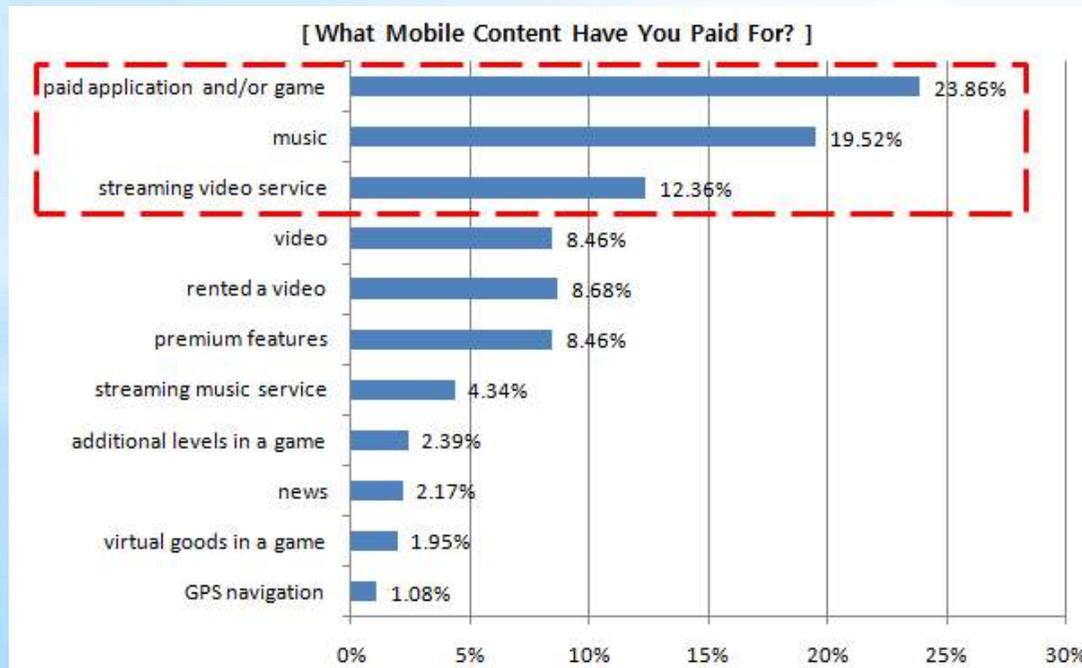


Web Application Architecture



OpenAppMarket

- <http://www.openappmkt.com>
- Mobile Web Application AppStore
- Consider Game, Music, Video service Web Application.



- Source : ReadWriteWeb Poll.

Summary I

- Mobile Platform Evolution
 - Runtime Environment → UI Framework, Widget → Multimedia, Cloud Service
- Platform Market Share : Android, iOS
- Developer preference : iOS, Android
- New Platform : Kindler Fire, Tizen
 - Digital Contents driven Platform
 - General OS for connected device (TV, Tablet, Auto...)
- Future
 - Support N-Screen : Contents driven Platform
 - Web brings up as a Application Platform

Summary II

- Apple AppStore open new age of AppStore.
- Among lots of AppStores, Apple, Android, BlackBerry, OviStore are working well.
- Falling down Mobile Application Prices and increasing free applications causes to find new BM.
- Freemium is popular profitable BM.
- Mobile Web applications are increasing and web as an application platform.