

Introduction to Mobile Computing – A Programmer’s “Ontology”



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A Word about me

Programmer at heart, Software Engineer by temperament and IT professional by Trade. I am currently designated as a Solutions “Architect” in a Company.

Architect (n) – Any person who has “fooled” around in the Software Industry for sizeable time (ever shrinking span) who is past his prime, as a Programmer Or Engineer, Systematically moved up in the hierarchy to obey “Peter Principle”.

I will try to make it Simple!

Prathikriya vaadhigalum
bhoorshvasigalum pradhama drishtya
agalchayyil aayirunenkilum avar
thammillulla andhardhara
kuravayyirunnu ennu venam
karudhan. adhannu nammal thottathu.

"MANASILLAYILLA"

Athayyathu vargadhipathyavum
colonialist chinthasaranigalum
radicalayya matamalla, ippol
manasillayyo.



എന്ത് കൊണ്ട് നമ്മൾ തോറ്റു, എന്ത് ലളിതമായി
പറഞ്ഞാലേന്താ? വെറുതെ confusion ഉണ്ടാക്കുന്നതെന്തിനാ ?

Mobile Application Development Landscape

- Native Application Development
- Server Powered Web Browser Based Apps
- HTML5,CSS3,JavaScript apps
- Hybrid application development
- Mobile Application development Platforms



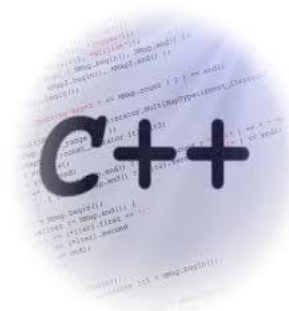
Native Application Development



iOS



Objective-C



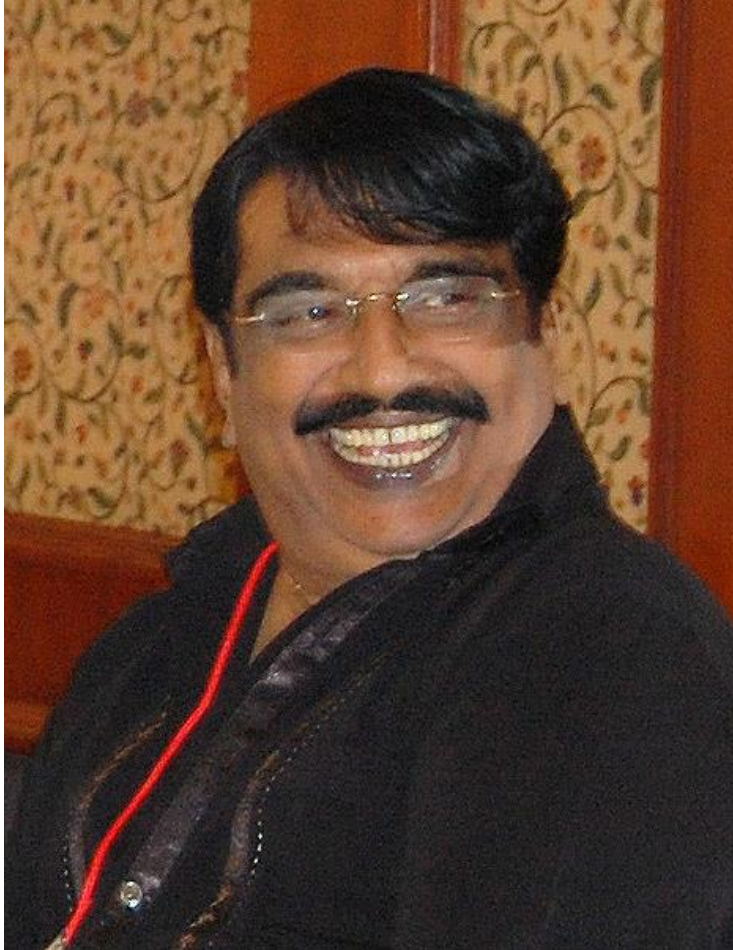
C#



Android NDK



Which native Platform to place bet on?



In India, it is like this, I do not know how it is in Punjab?

- Punjabi House

How To be an iOS developer without a MAC OS X machine

- History of MAC OS X Operating System
- GCC/CLANG++ has support for Objective C/C++ language under GNU Linux and Windows
- Learn the language on these platforms
- Play with Foundation support
- Install GNU Step (“Poor man’s AppKit”)
- Write Some GUI programs to understand Apple Programming Model
- Then, I will “whisper” to you!

HTML/CSS3/JS –Polyglot development for Responsive Apps



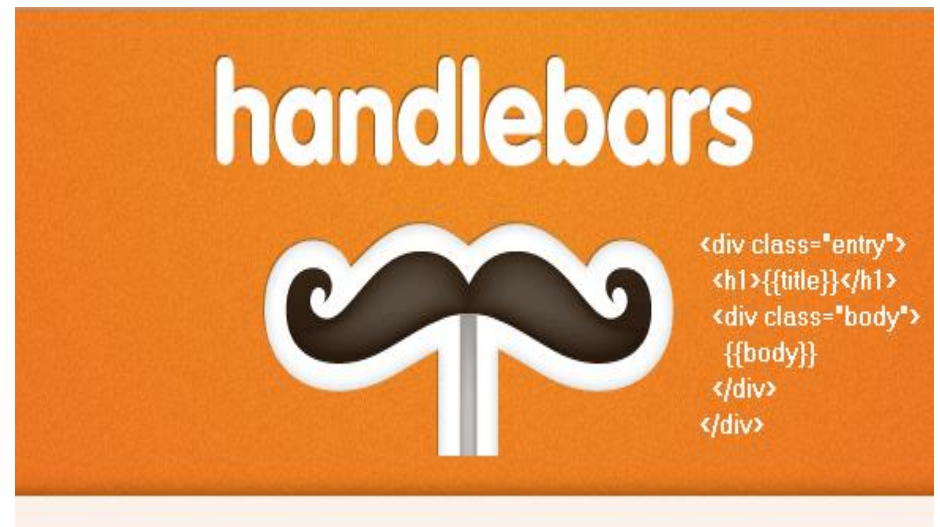
Who is more important?



Aaj mere paas building(C++) hai,
property(C#) hai ,
bank balance (Java) hai,
bungla(Python) hai,gaadi hai(PHP)
Kya hai, Kya hai tumhare paas?

....Mere Paas Maa (JavaScript) hai

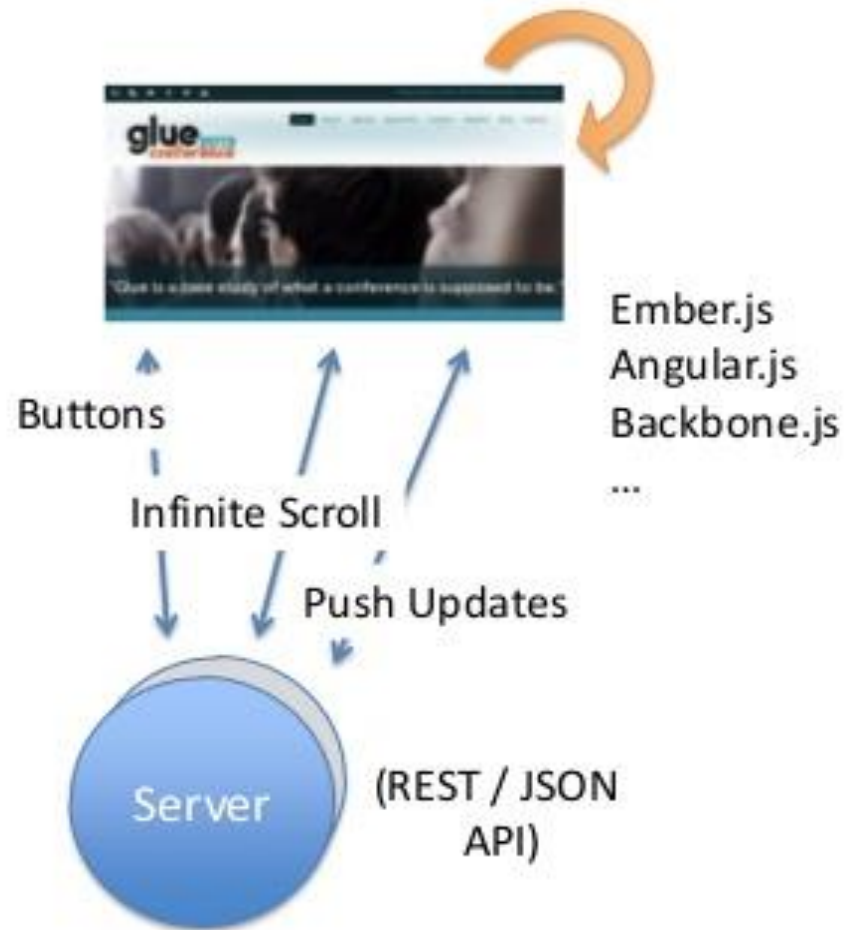
JavaScript Frameworks



Single Page Web Applications

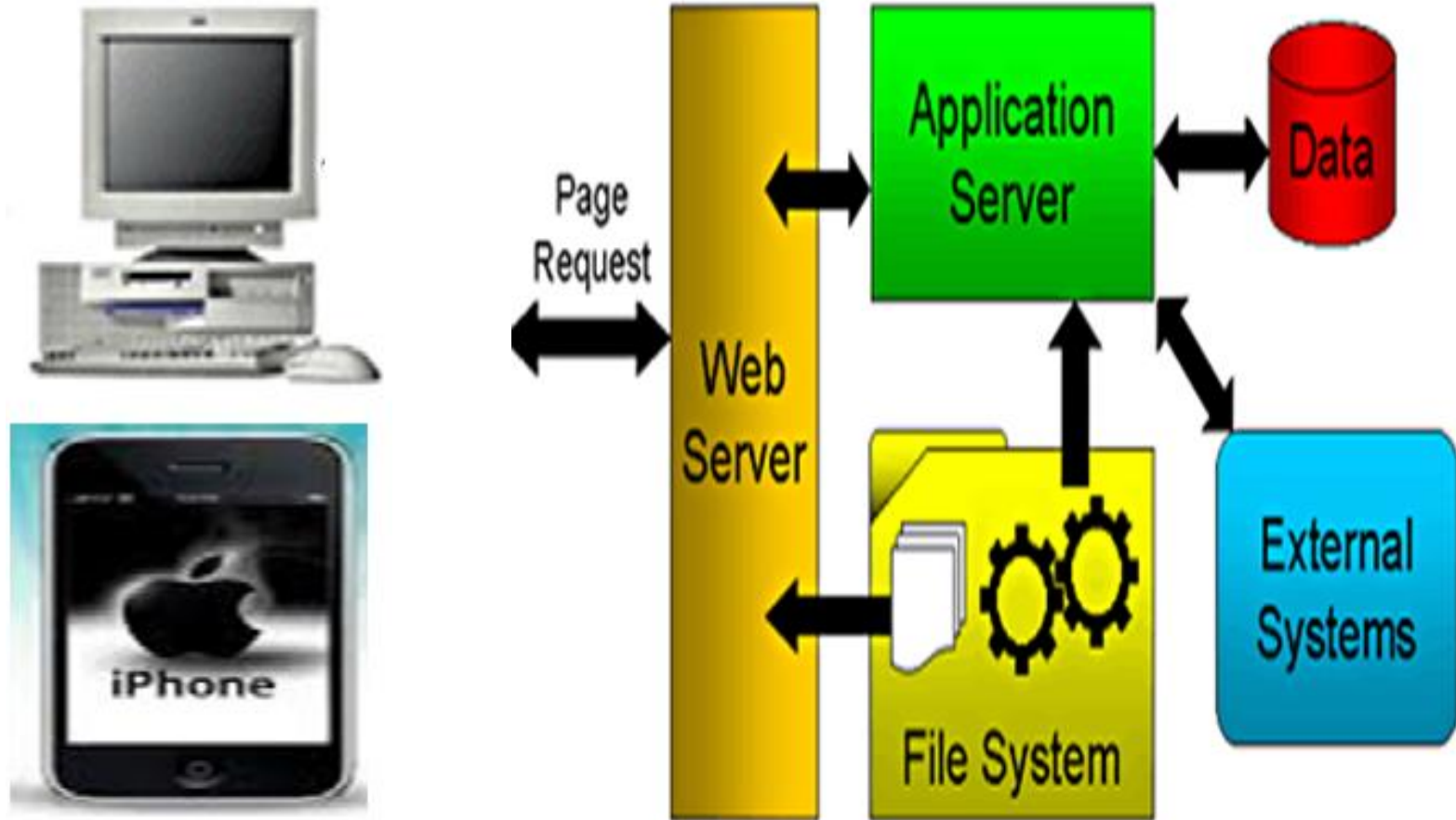


Single HTML Page & URL Per Page
many Pages per Site / App

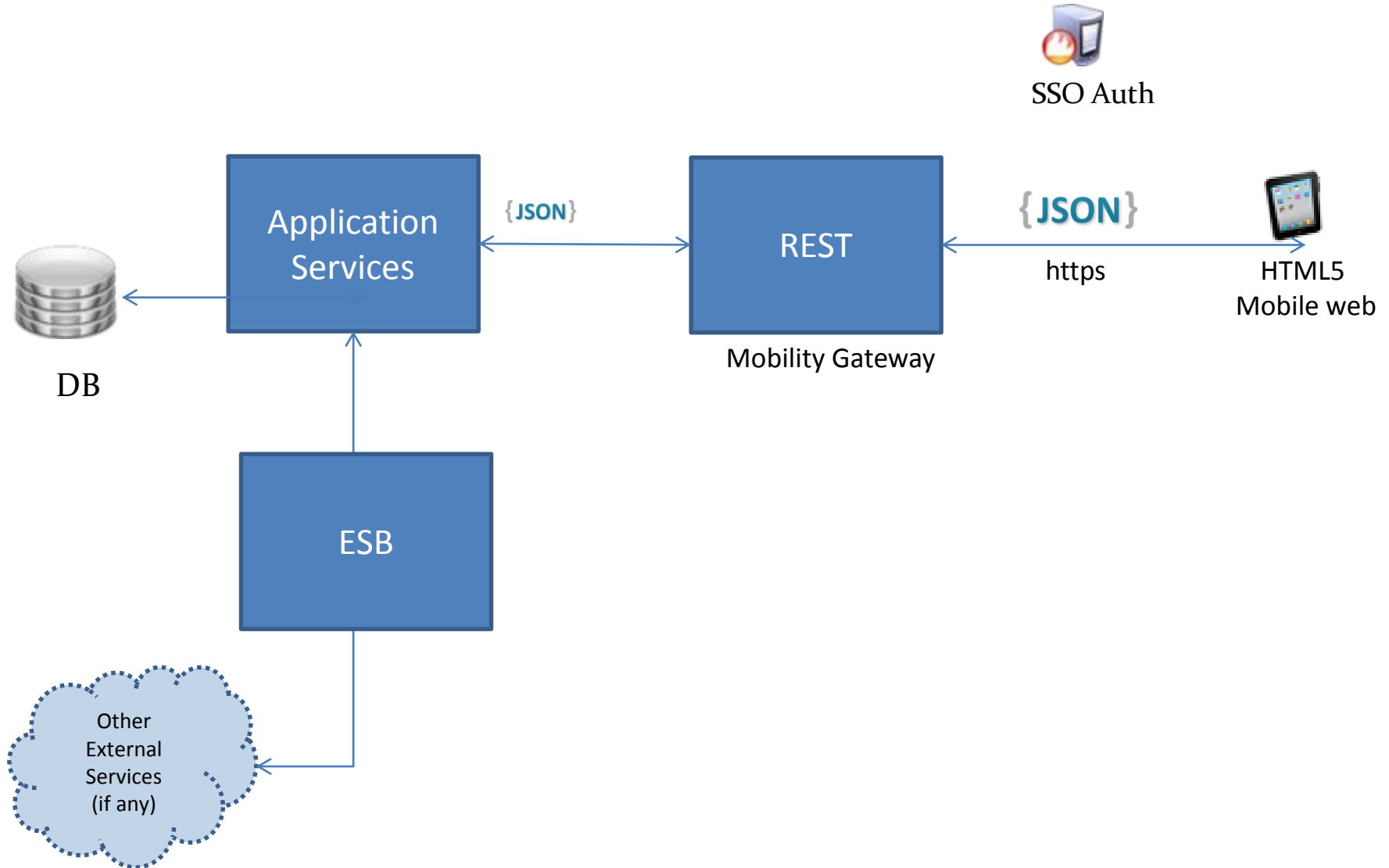


SPAs Serve a Single Page of HTML
and use in page controls to operate
dynamically

Server Rendered Browser apps



HTML5 application



Hybrid Application Development



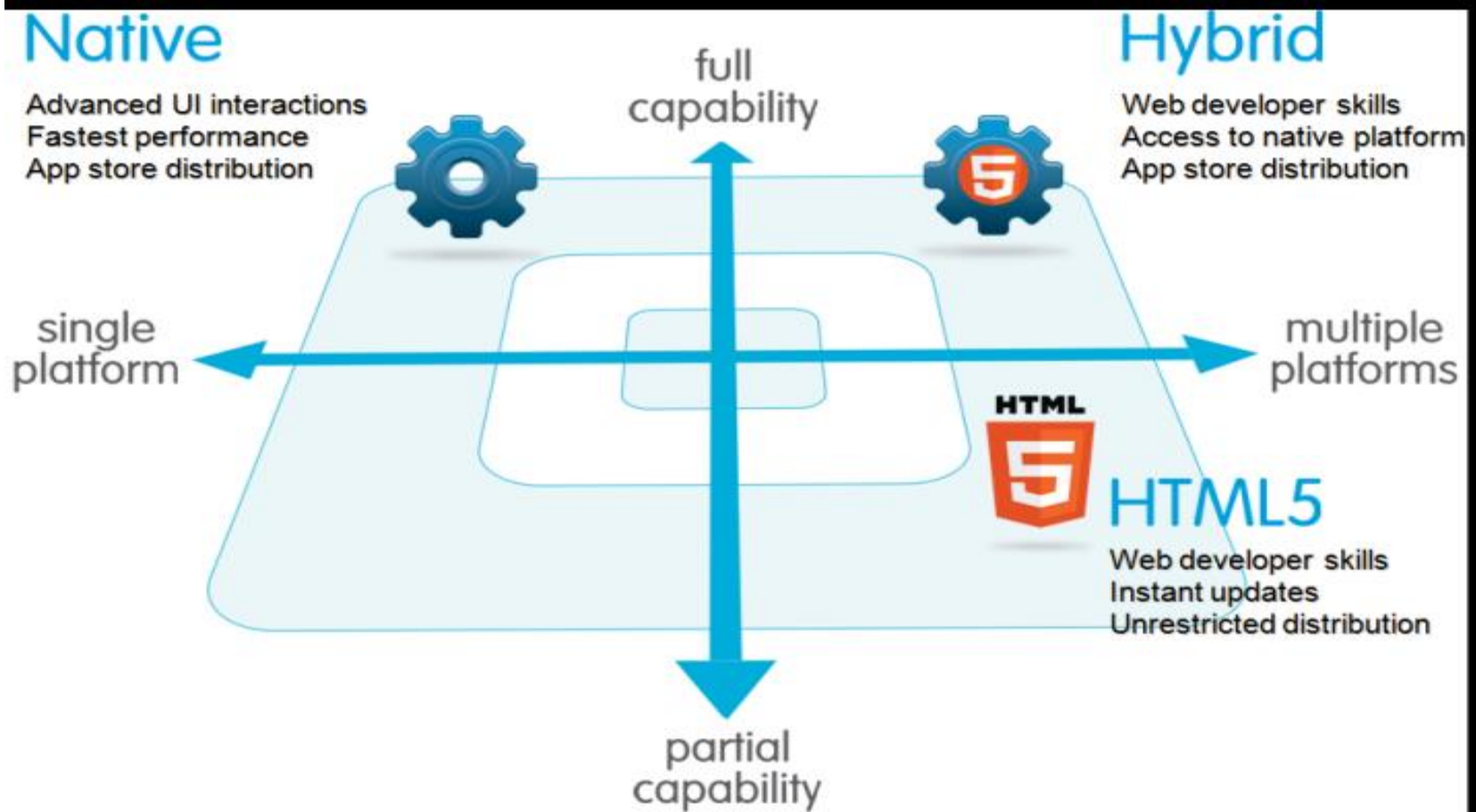
Mobile application Development Platforms



Mobile application Development Platforms



Mobile Application Quadrant



Enterprise Application Development

- JEE
- .NET
- LAMP
- Ruby on Rails
- Node.js (MEAN)



The Enterprise Development reality

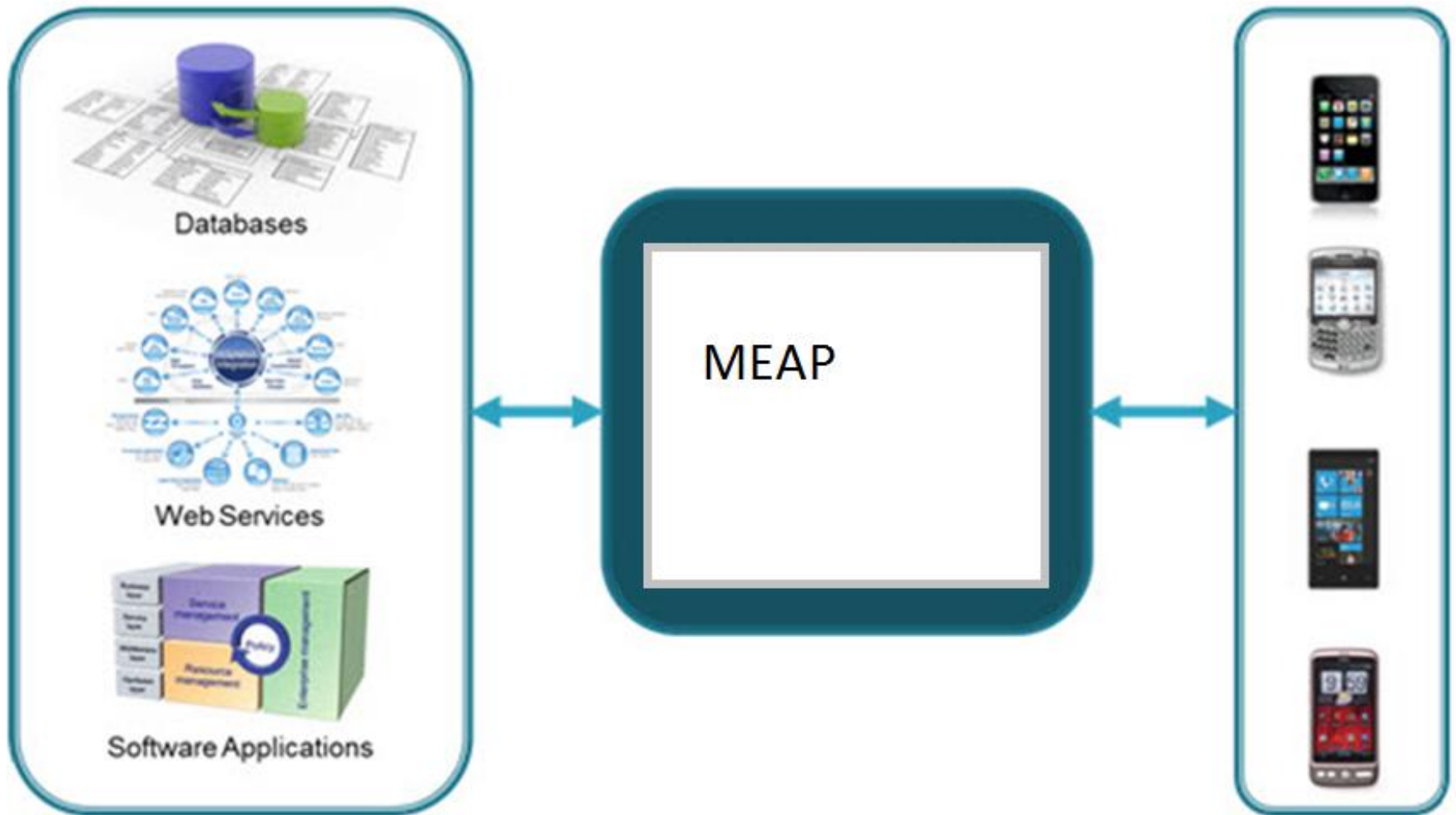
“Forget About the Server, It is all about the REST”

I'm a mobile developer , why should I care about Enterprise ?

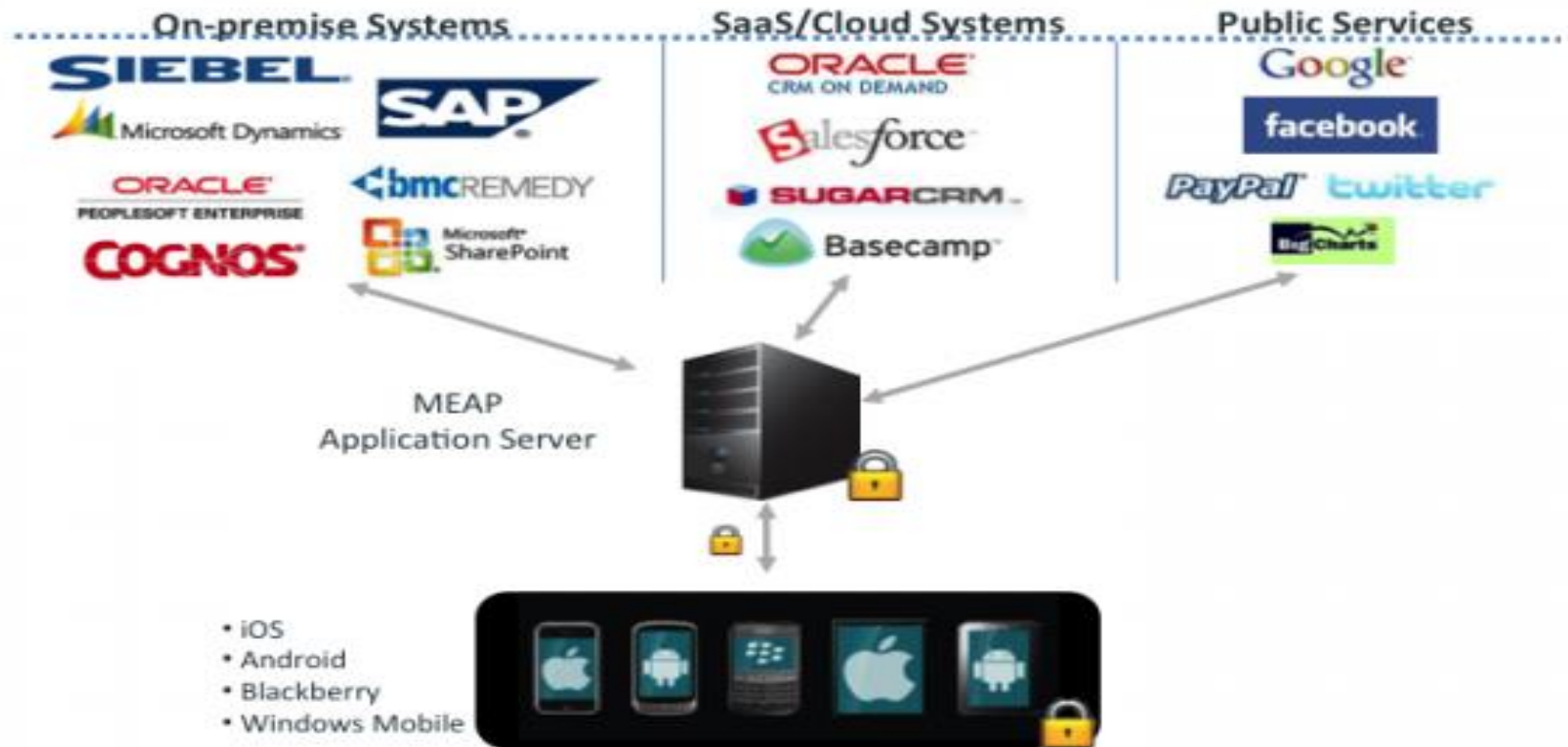
- Adoption of Mobile Devices
- On the fly collaboration
- Retail app market has saturated
- Bring Your Own Device (BYOD)



Mobile Enterprise Application Platform (aka MEAP)



MEAP Execution Context



MDM/MAM

- App delivery
- App security
- App updating
- User authentication
- User authorization
- Version checking
- Push services
- Reporting and tracking

MAM



- OTA - Over the air updates
- Remote Configuration and Provisioning
- Security
- Backup/Restore
- Network Usage and Support
- Remote Lock and Wipe
- Device Provisioning
- Software Installation

MDM



Mobile Device Management



Cross Platform/MEAP

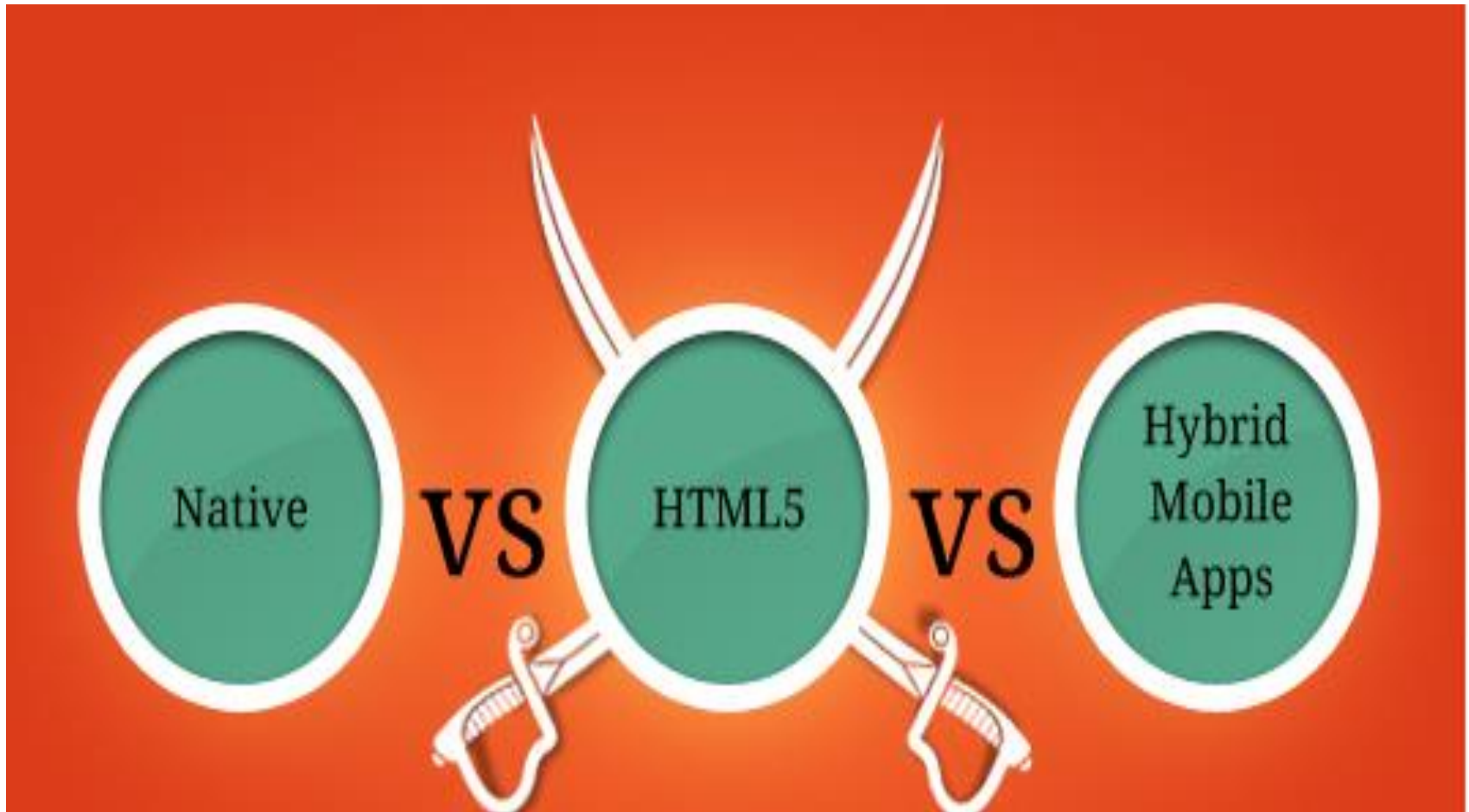
MEAP
Examples



Cross-Platform Development
Frameworks Examples



Battle of Development Models



Q&A

- Any Questions ?