
UBIQUITOUS USER EXPERIENCE

SIG

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September 22, 2011

Critical Success Factors (Mobile UX)

Relevant Content

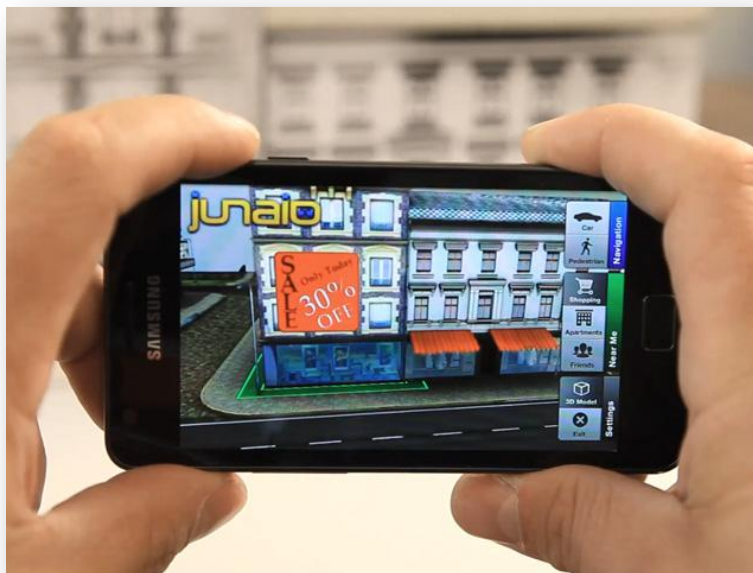
Gaming, Retail,
Social Media etc

Immersive

User Experience

“True to Life”

3D Graphics



Great Battery Life

For a sustained Experience

Reliable

Connectivity

Ergonomically

attractive

Fast & Responsive

Image Recognition

CPU

GPU

Other

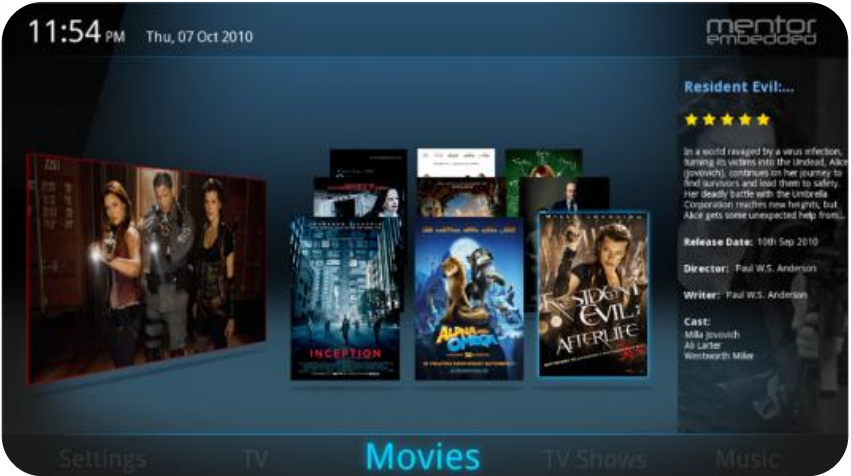
Critical Success Factors (Home UX)

Relevant Content
Gaming, Retail,
Social Media etc

**Interactive
Integrated Controls**

**“True to Life”
3D Graphics**

**Full HD, 3D displays
Multiple Screens**



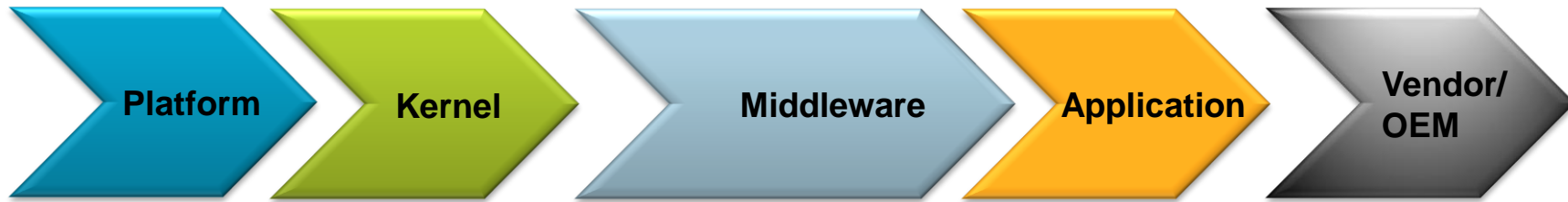
3D Programming

Scalable Performance

Cost and Power

CPU GPU Other

Fragmented UI framework



Home
STB, Connected TV



Mobile
Smartphone, tablet



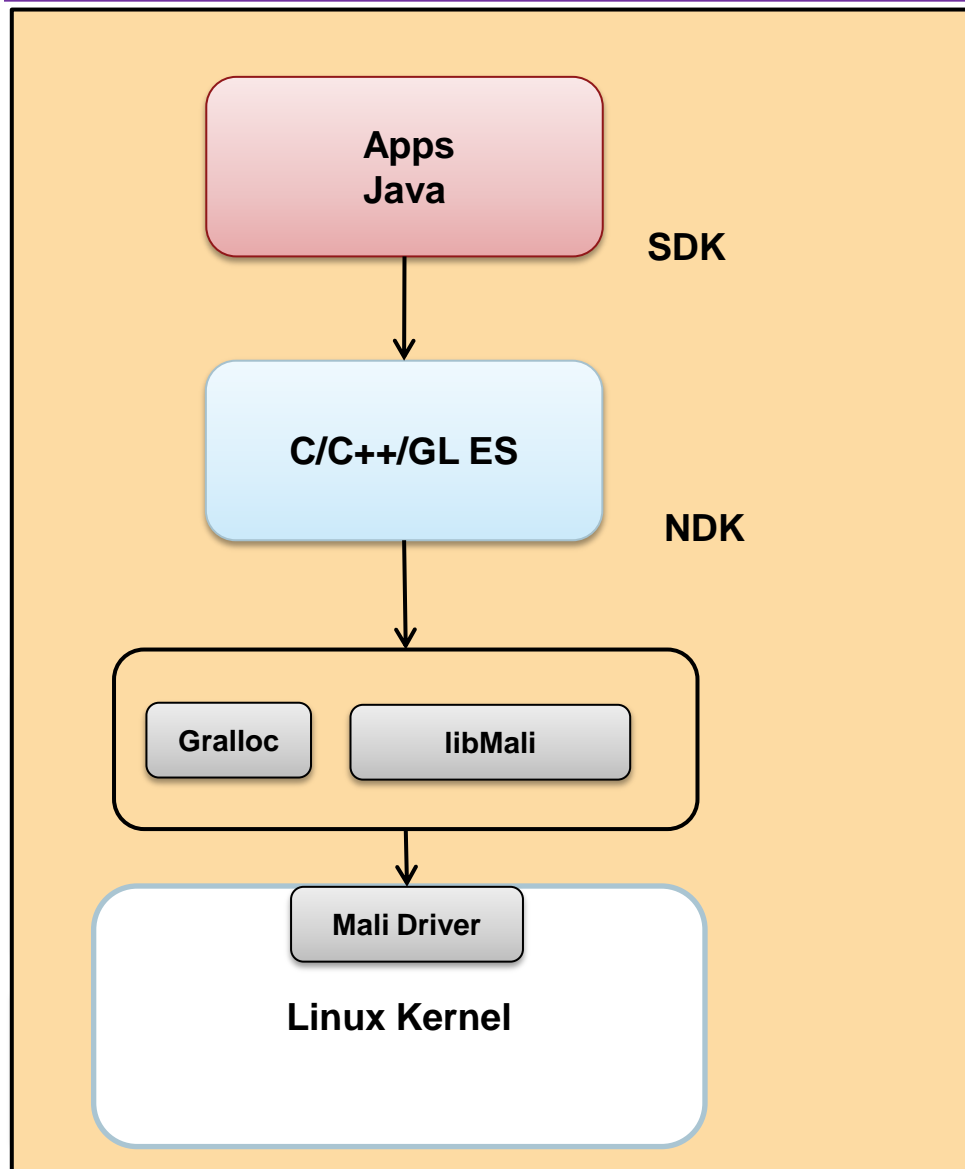
Auto



Enterprise



Optimizing the Middleware (example)



Middleware

Application

Vendor/
OEM

Optimization



- API: Performance Analysis Tools
- Kernel: UMP, Memory Allocation

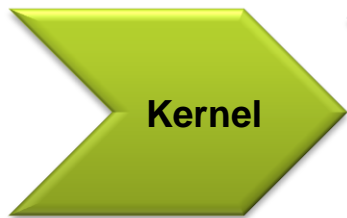


Summary

- UI frameworks are fragmented
- The fragmentation is exacerbated by requirements in different segments
- Essential to optimize key components of the framework to consolidate the lower layers of the framework
- Differentiation enabled in the top layer of the stack
 - UI Design tools running on optimized Open Source components
- Focus on optimizing and standardizing across Open-source components
 - Memory allocation, 2D/3D Graphics, Webkit, Javascript on ARM platforms
 - Linaro + ARM is a step in that direction

BACKUP

Optimizing the Value Chain



Strategy

Scalable
ARM CPU +
ARM Mali™-400 MP GPU

Android

Middleware
optimization
with key
Ecosystem
partners

Provide
Ecosystem
Partners with
developer
resources, tools

OEMs pick
optimized,
proven solution
with a strong
Ecosystem

Result

World class GPU
Combined with
Cortex-A9 processor-
enabled Galaxy S2

Best Android™
Smartphone

Partners provide
efficient,
scalable
solutions

Wide adoption of
ARM technology
Expanding
Ecosystem

One stop-shop
solutions,
strong
partnerships

Next

GPU Computing
with Mali-T600 series
GPUs

Expand Android
Ecosystem

Expand Ecosystem
Optimize open
source, Adobe®
AIR®, key 3rd parties

Further educate
on community
on ARM's
computing
platforms

Provide
application
driven CPU+GPU
Ecosystem