

# Android: New Experience of Mobile Computing

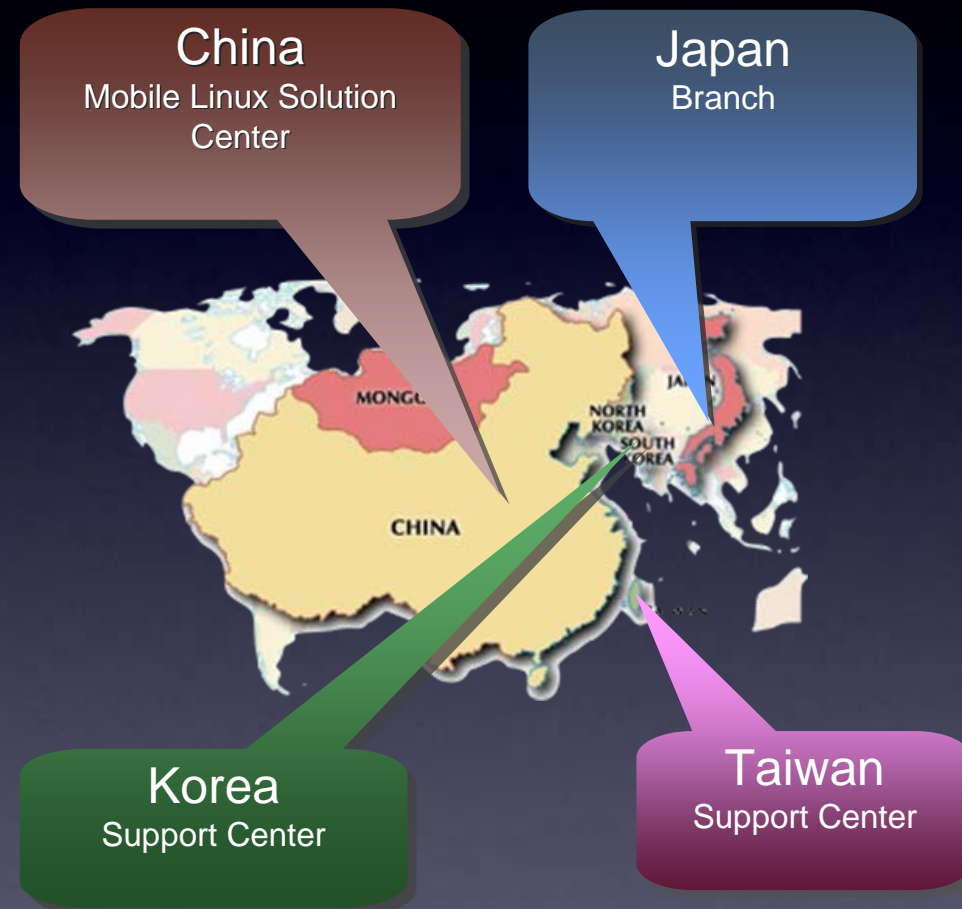
# Agenda

- ❖ ThunderSoft: Innovative Android & Mobile Solution Provider
- ❖ Android for Smartphone
- ❖ Android for Smartbook
- ❖ Partnership
- ❖ Android & Mobile Linux Solution Demo

# ThunderSoft: Innovative Android & Mobile Solution Provider

# Company Profile

- ❖ The pioneer mobile turn-key solution & service provider
- ❖ Headquarter in Beijing;
- ❖ Branch in Tokyo;
- ❖ Support Center in Korea
- ❖ Support Center in Taiwan



# Our Mission

***Provide commercial quality mobile Linux/Android solution & service to accelerate OEM time-to-market***

Deliver commercial quality Mobile Linux OS/ Android based solution

Develop & Enhance key mobile applications

UI Design & Implementation

Pre-integrate key 3rd party applications & Deliver turn key solution

Provide customization & support services

# Our Value

- Experienced Mobile Linux/Android Engineer Team
- Professional & Global  
ISO9001, ISO27001, CMMI3, Multi-lingual, on site support center in APAC
- Rich Oversea Experience  
Extensive experiences and knowhow on overseas market.
- Rich Ecosystem Partners  
Strategic partnership with top chipset vendors & ISVs
- Cost Effective

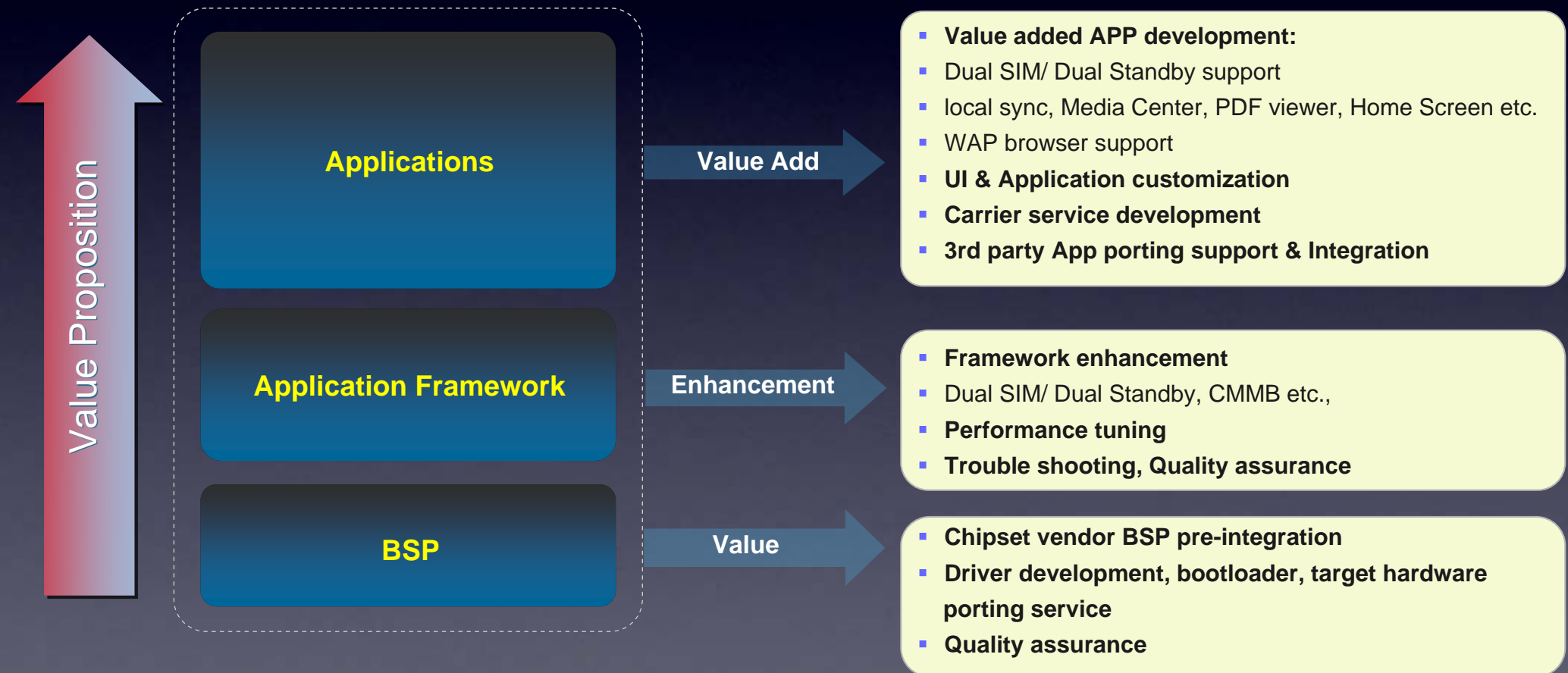


# Android Smartphone

*ThunderSoft*

# Android for Smartphone: Value Proposition

Provide commercialized Android turn key solution and professional technical service to enable OEM shorter time-to-market





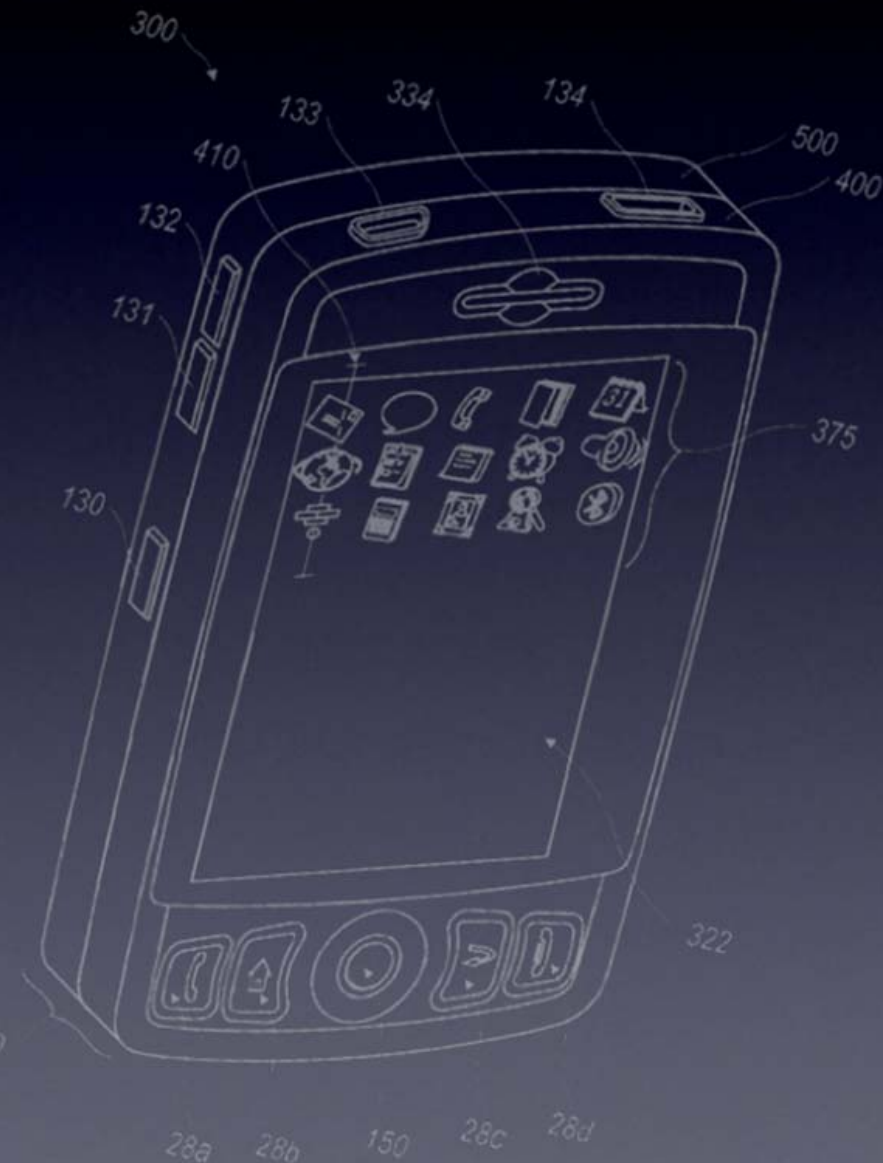
# Target Hardware Porting

## ■ Bootloader

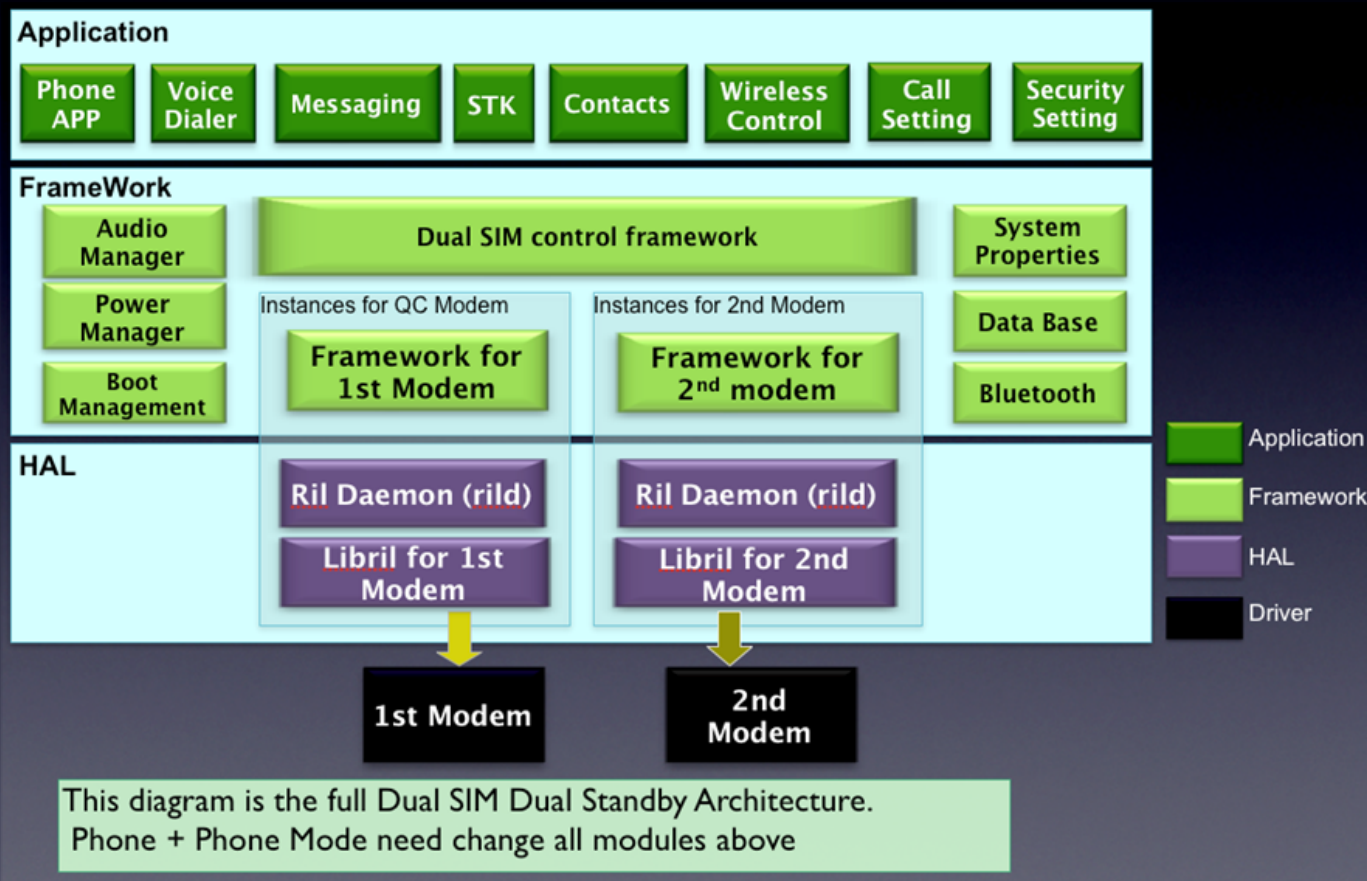
- Fastboot, ADB etc.
- Recovery

## ■ Driver Development

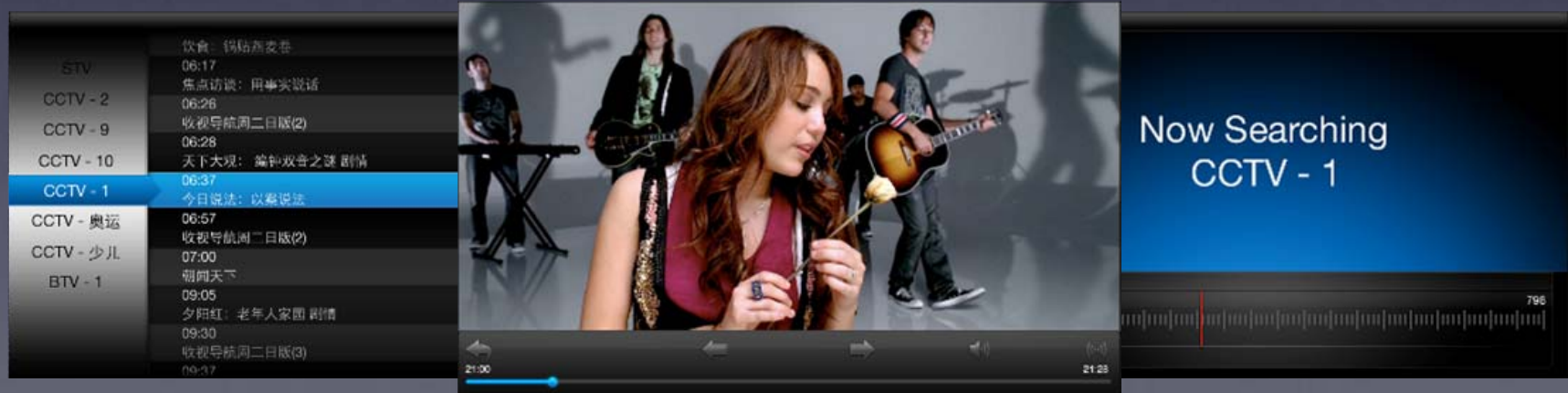
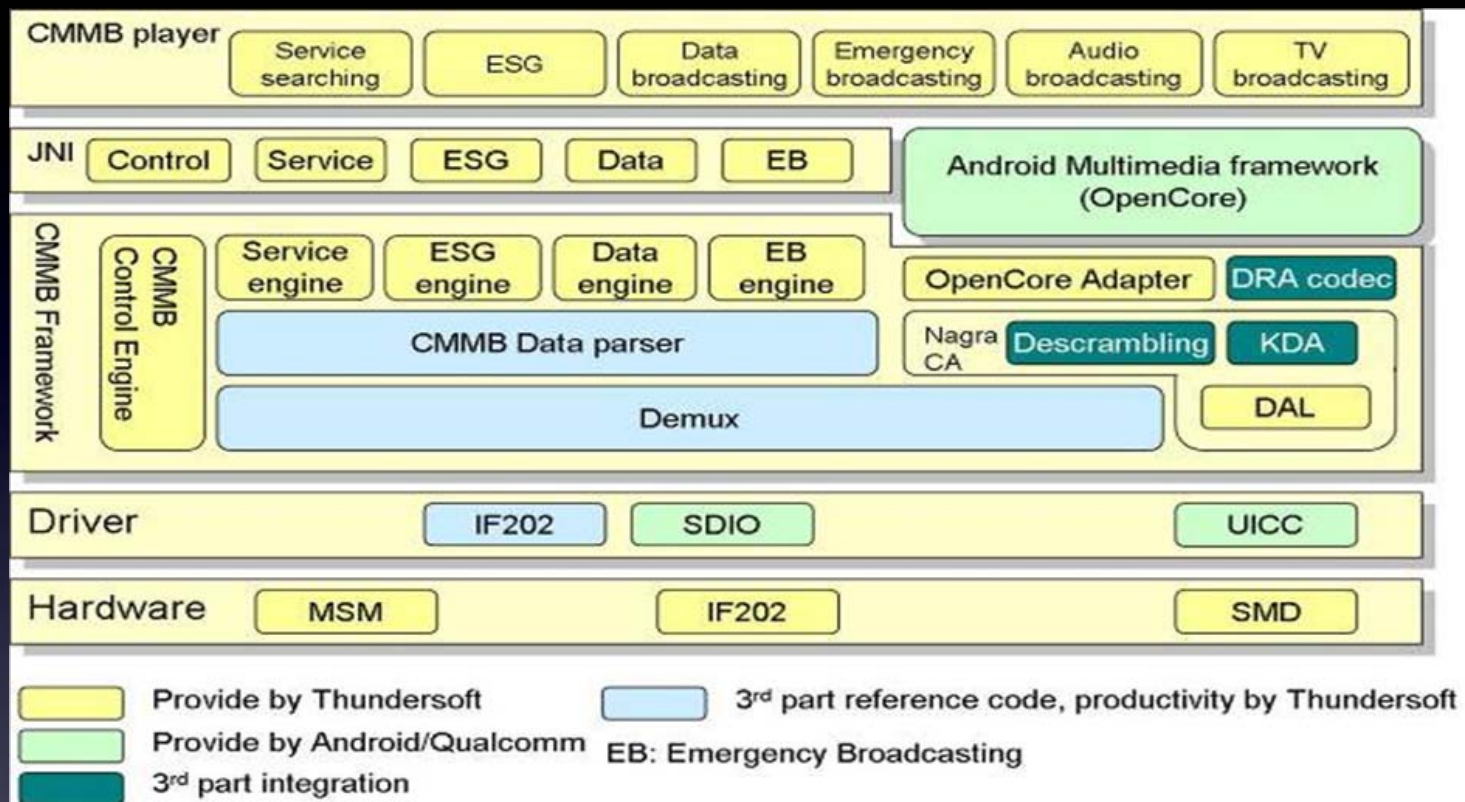
- LCD, Touch Panel
- GPS
- G-Sensor
- Vibrator
- Power Management / Charging
- Camera
- SD Card / E-MMC
- Speaker, MIC
- System Power on / off, LED, GPIO-Key



# Dual SIM Solution: Architecture



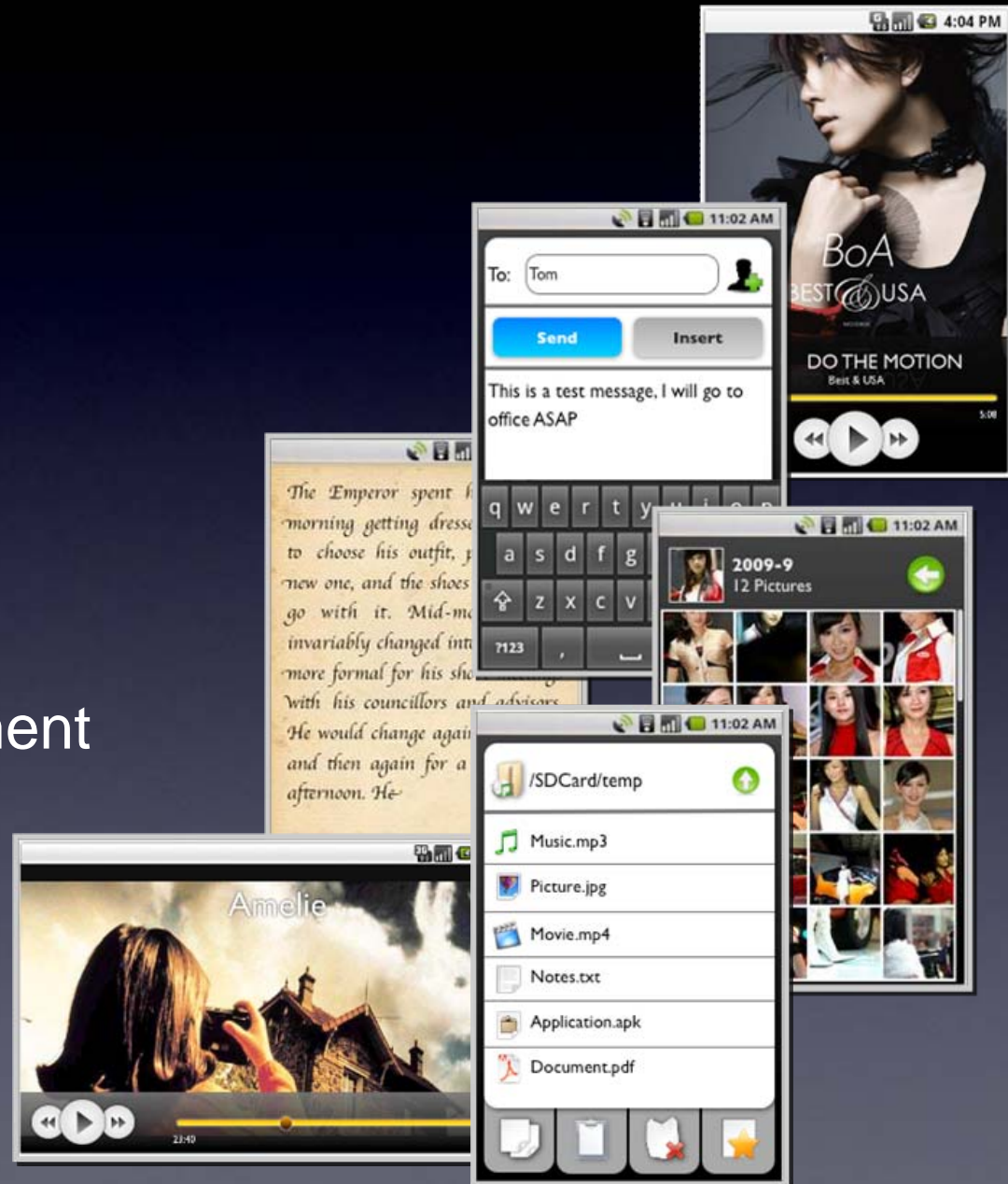
# CMMB Solution





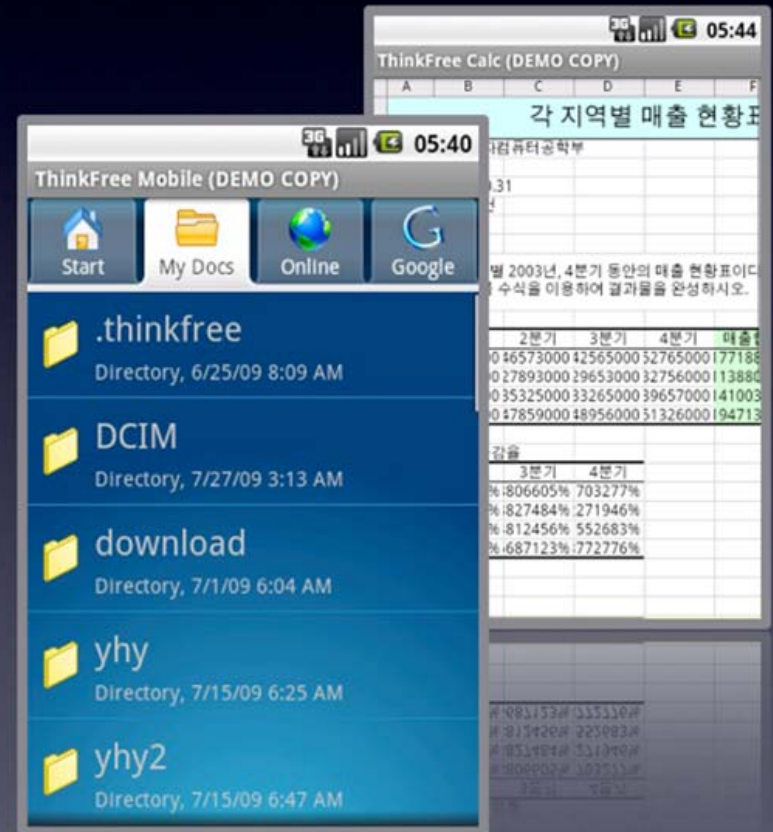
# Value added Applications

- Local Sync
- Media Center
- Backup/Restore
- File Manager
- PDF Viewer
- Theme Manager
- Carrier Service development
- More Widgets
- Enhanced Browser



# Solution Ready

- Flash
- Full functional Office
- Exchange Active Sync
- Media & Codec (Real)
- Handwriting
- Navigation



**Thinkfree Office for Android**

# UI Enhancement

- ❖ New UI design & Implementation
- ❖ Theme Manager
- ❖ Multi-Touch
- ❖ Gesture Engine Enhancement



# Android For Smartbook





# Android for Smartbook?

## Issues when using Android on Smartbook:

- Only support single window, and no window resize, title bar, scroll bar etc.
- Designed for touch-screen, no mouse and keyboard support
- Low resolution: Only support up to WVGA
- No support VGA out
- No support for USB massive storage, NTFS

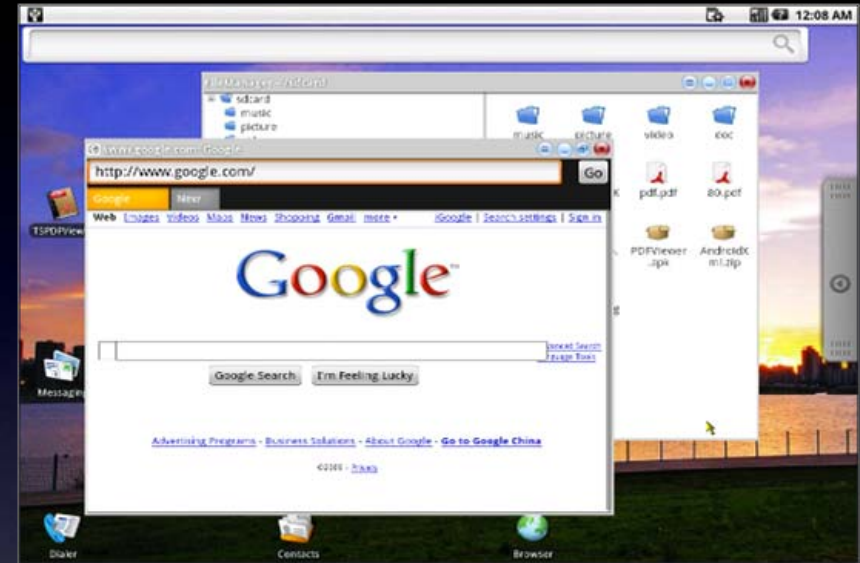
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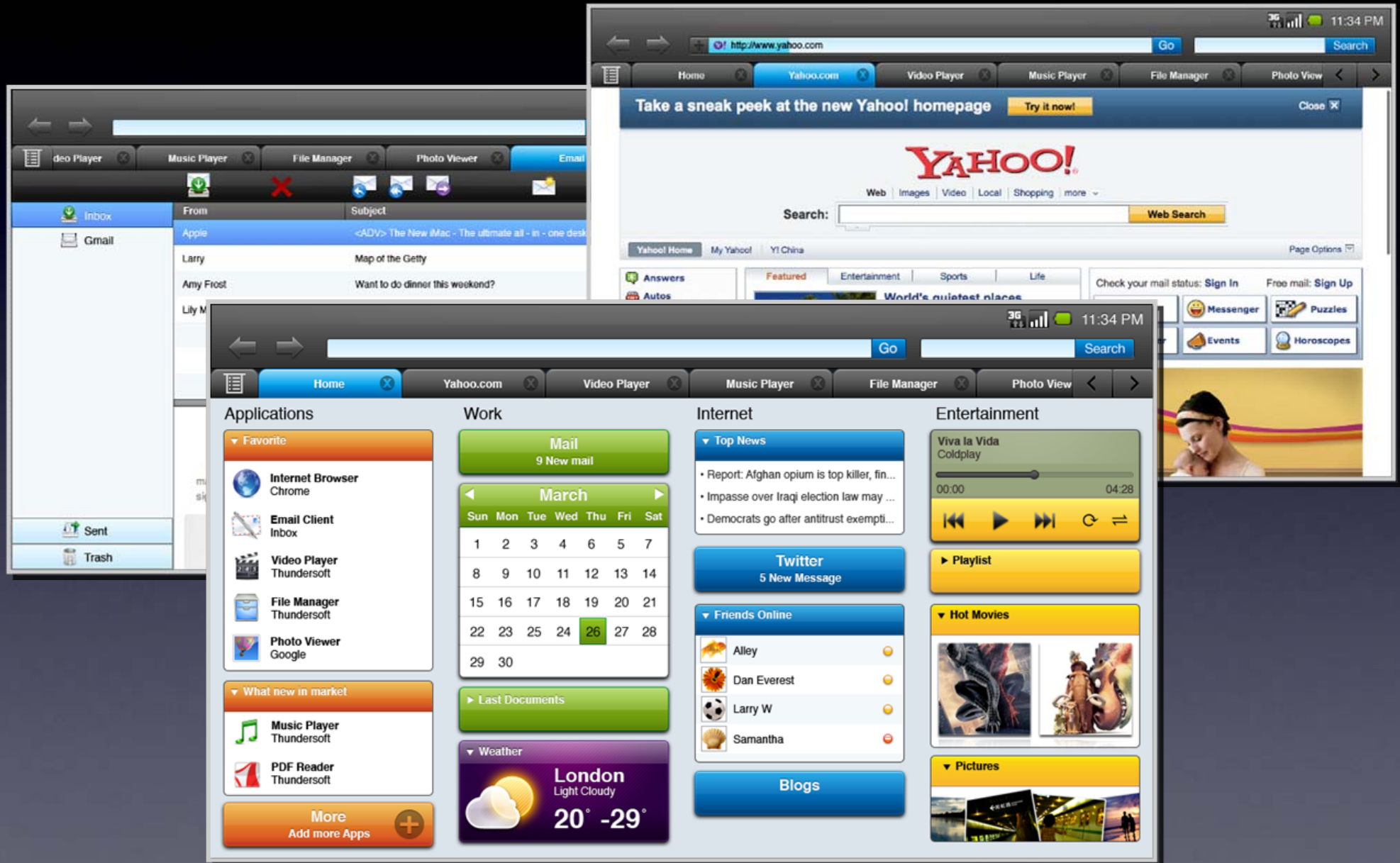


# ThunderSoft Innovative Solutions

- Multi-Window
- Window resize, title bar, scroll bar etc.
- Task switch
- Mouse cursor
- High Resolution
- USB massive storage
- VGA out



# New UI Design



# Partnership

# Partnership With ARM

- Official software turn key solution partner with ARM
- Direct technical support from ARM
- Product Roadmap Alignment
- Enable eco-system partners together

ARM

Partnership

ThunderSoft in the ARM Connected  
Community Partner

The screenshot displays the ARM Connected Community website. At the top, the ARM logo is followed by the tagline "THE ARCHITECTURE FOR THE DIGITAL WORLD". A navigation bar includes links for MARKETS, PRODUCTS & SOLUTIONS, CONNECTED COMMUNITY, TECHNICAL SUPPORT, and DOCUMENTATION. A search bar is located in the top right corner. The main heading is "company profile". Below this, a breadcrumb trail reads "Home > Connected Community > Thunder Software Technology Co., Ltd.". The left sidebar contains a "Connected Community" menu with links to Home Page, Find (Silicon, Design Support, Software, Training, Consortia), Search by (All Partners, Markets, Product Type, ARM Processors, Advanced Search), Partner News, and ARM Powered Products. The main content area is titled "COMPANY PROFILE" and features the "ThunderSoft" logo. It identifies "Thunder Software Technology Co., Ltd." and provides a "Company Description" stating they are a pioneer in mobile Linux turn-key solutions. A "ThunderSoft mission" statement follows, along with a list of services: providing mobile Linux OS, developing key applications, integrating 3rd party applications, and providing customization & support. Contact information for the "Headquarters" in Beijing is also listed, including the address, phone number (+86-10-62662686), and website (http://www.thundersoft.com). An "ASK ARM" button and the ARM Connected logo are visible in the top right of the profile section.



# Partnership with Qualcomm

**Cooperate with Qualcomm for 2 years  
on Linux enabling**

**Provide solutions for many  
OEM/ODMs**

Wistron Pbook, Inventec Alaska,  
Global OEMs etc.

**Direct & Deep Co-operation**

Co-work on BSP

2D, 3D, h/w codec, power management, phone stack,  
Xwindow integration, Bluetooth, etc.

Testing

**Work on-site at QCOM headquarter**

**Third-party enabling**

Flash, Skype, Java, Office, Navigation, etc.



# 8K Devices Running ThunderSoft Solution

Millos Linux solution for Pbook won LAPTOP's Best of CTIA Award



**Wistron Pbook**



**Inventec Alaska**

# Smartphone Reference Design

- Work with Qualcomm selected IDH/ODM to develop 7K based Android Smartphone reference design.
- Team up with Qualcomm for China open market.
- Provide value added feature for Qualcomm platform, such as Dual Sim / Dual Standby, CMMB etc.

# Partnership with Freescale

- Thundersoft is Freescale supported software solution partner on i.MX51
- Project
  - Freescale reference design
- Millos and Android solution running on i.MX51





# Partnership with NVIDIA

- Formal software solution & service provider on NVIDIA Tegra platform
- Porting Android Smartbook Solution on Tegra T20 platform
- BSP integration
- Direct support from NVIDIA HQ
- Jointly support major ODM to make reference design on Tegra T20 and demo on CES



# Partnership with TI

- TI supported software solution partner
- BSP support and integration
- Android solution ported on Zoom2



# Partnership With Intel

## ■ Intel Netbook & MID partner

- Menlow, Moorestown

## ■ Close cooperation with Intel

- Full support from Intel
- Intel MID R&D and technical support mainly in China
- Joint R&D and ValidationDirect

## ■ Enabling the Moorestown

- 1st public demo in MWC
- IDF demo
- Major features
  - browsing internet over WIFI & 3G
  - voice call via CMCC network
  - HD content playback
  - 3D desktop
- Pre-alpha delivered in April



# ISV Partnership

ISV



ThunderSoft



ANDROID

[Images] [Building Environment] [Porting support]

Turn Key Software Solution

OEM Vendor





# Design Win

Clarion MiND

2008



*"ThunderSoft has played an important role in our MID project. Their team has a good understanding of the software development process and their multilingual services have made our collaboration efficient. Their quick response and quality service has been impressive and resulted in a compelling user experience on the Clarion MiND."*

Yoshiki Chubachi,  
Senior Project Manager of Clarion.



# Android & Mobile Linux Solution Demo

# Thank You



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