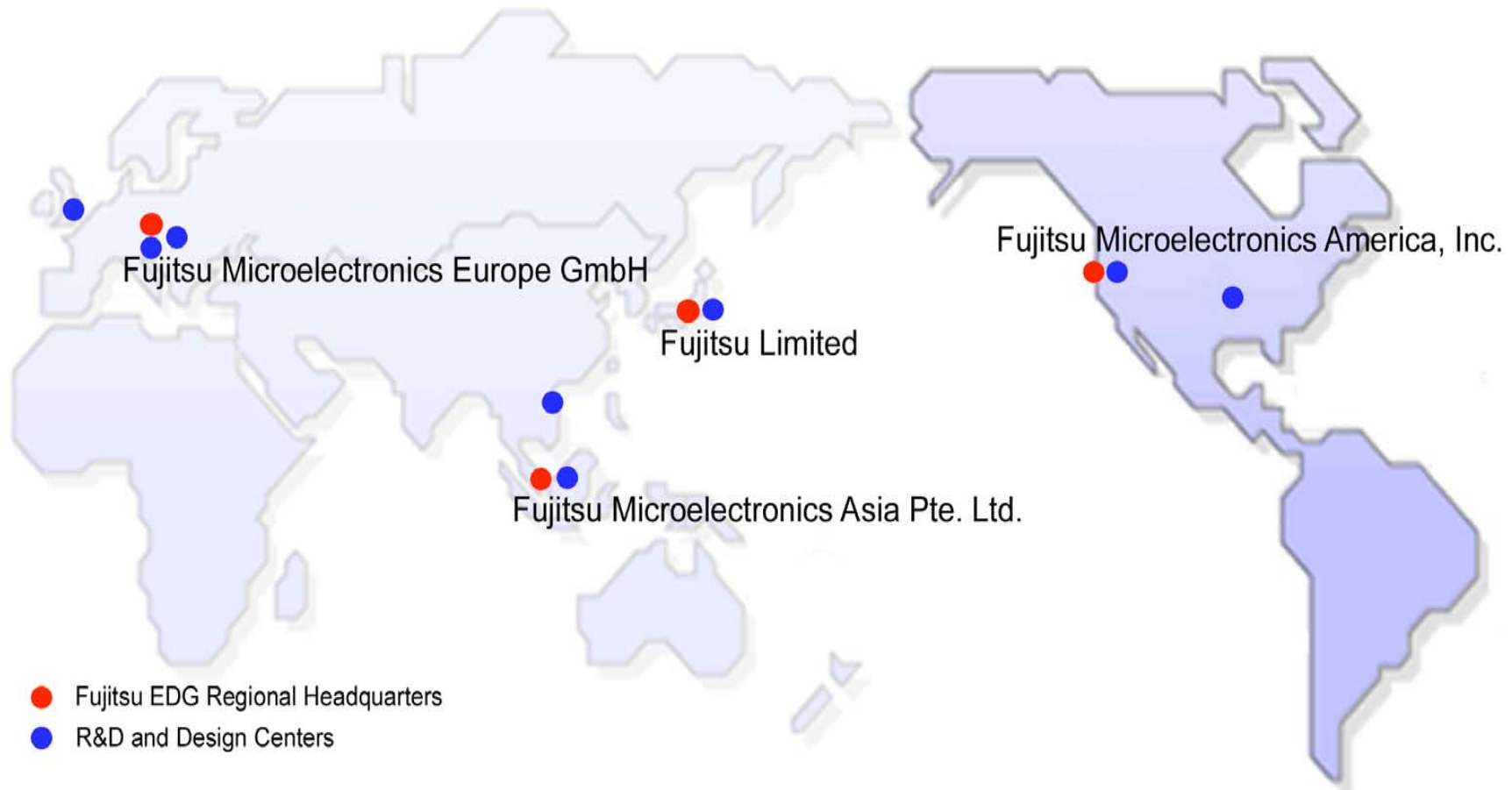

FUJITSU

Fujitsu Solutions to image
processing and graphics

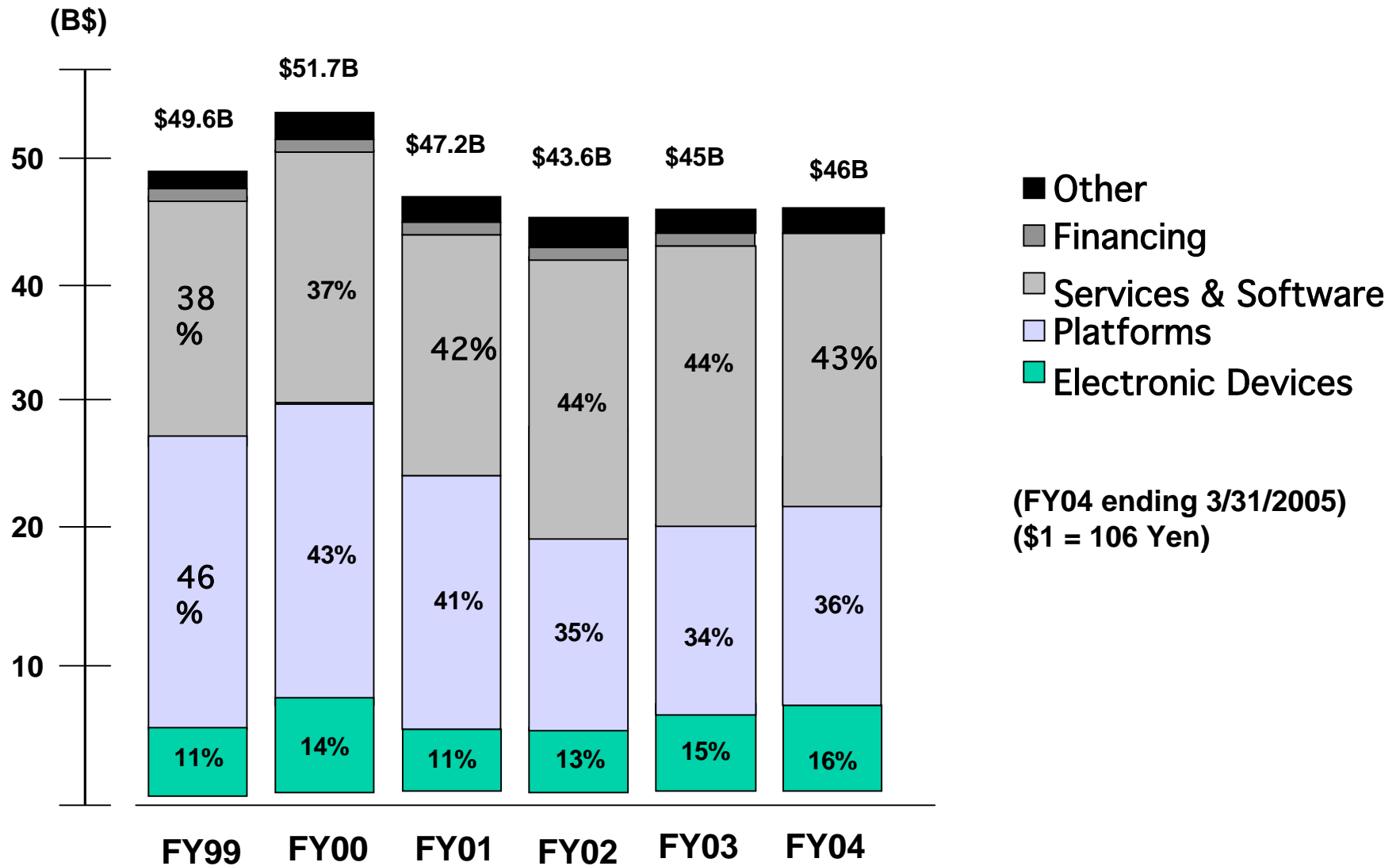


Fujitsu Electronic Devices Group (EDG)

Global Presence / Globalization



Fujitsu Limited Consolidated Net Sales



Fujitsu's Investment

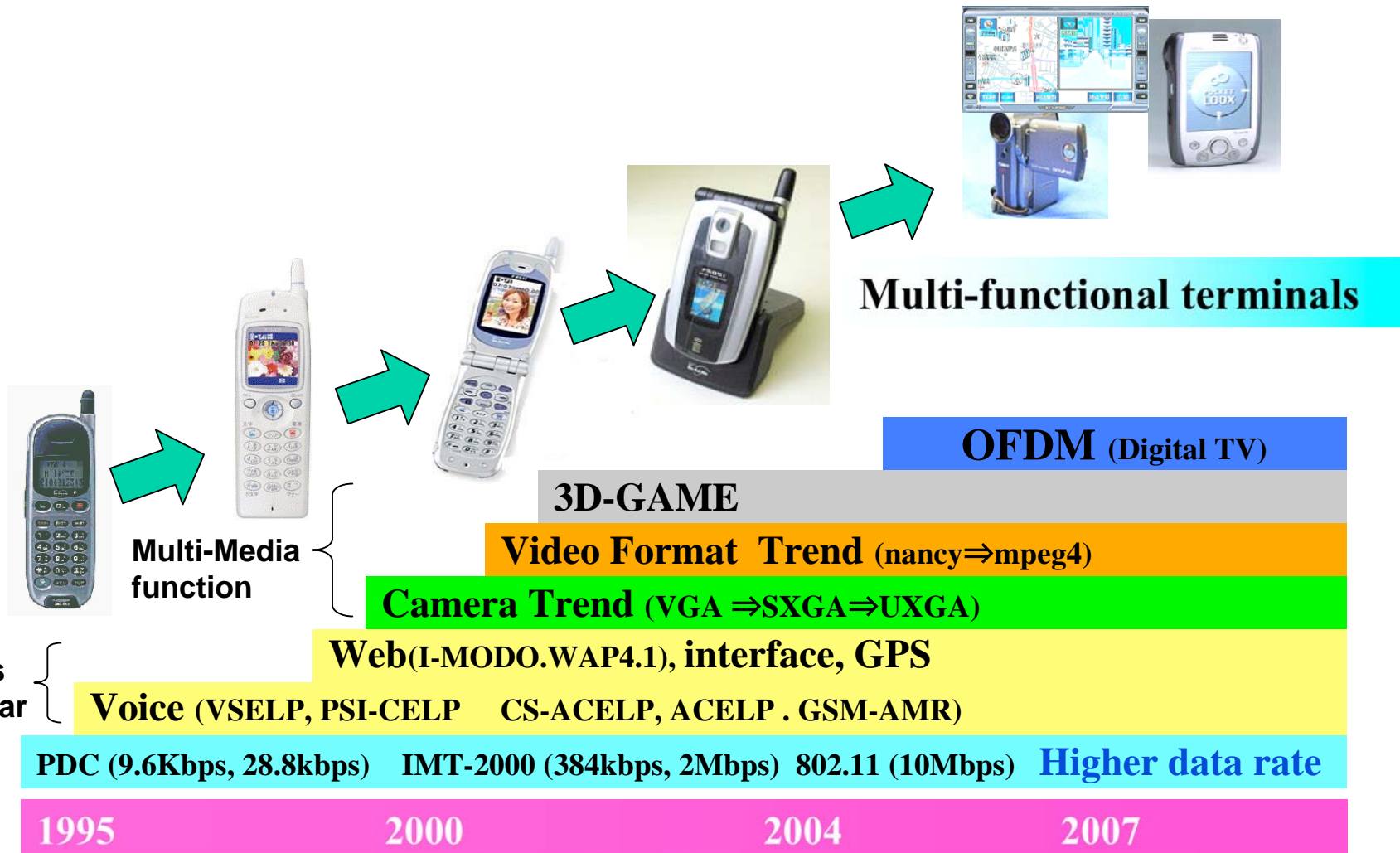
THE POSSIBILITIES ARE INFINITE **FUJITSU**

New 300mm Fab – Mie, Japan



September 13, 2004

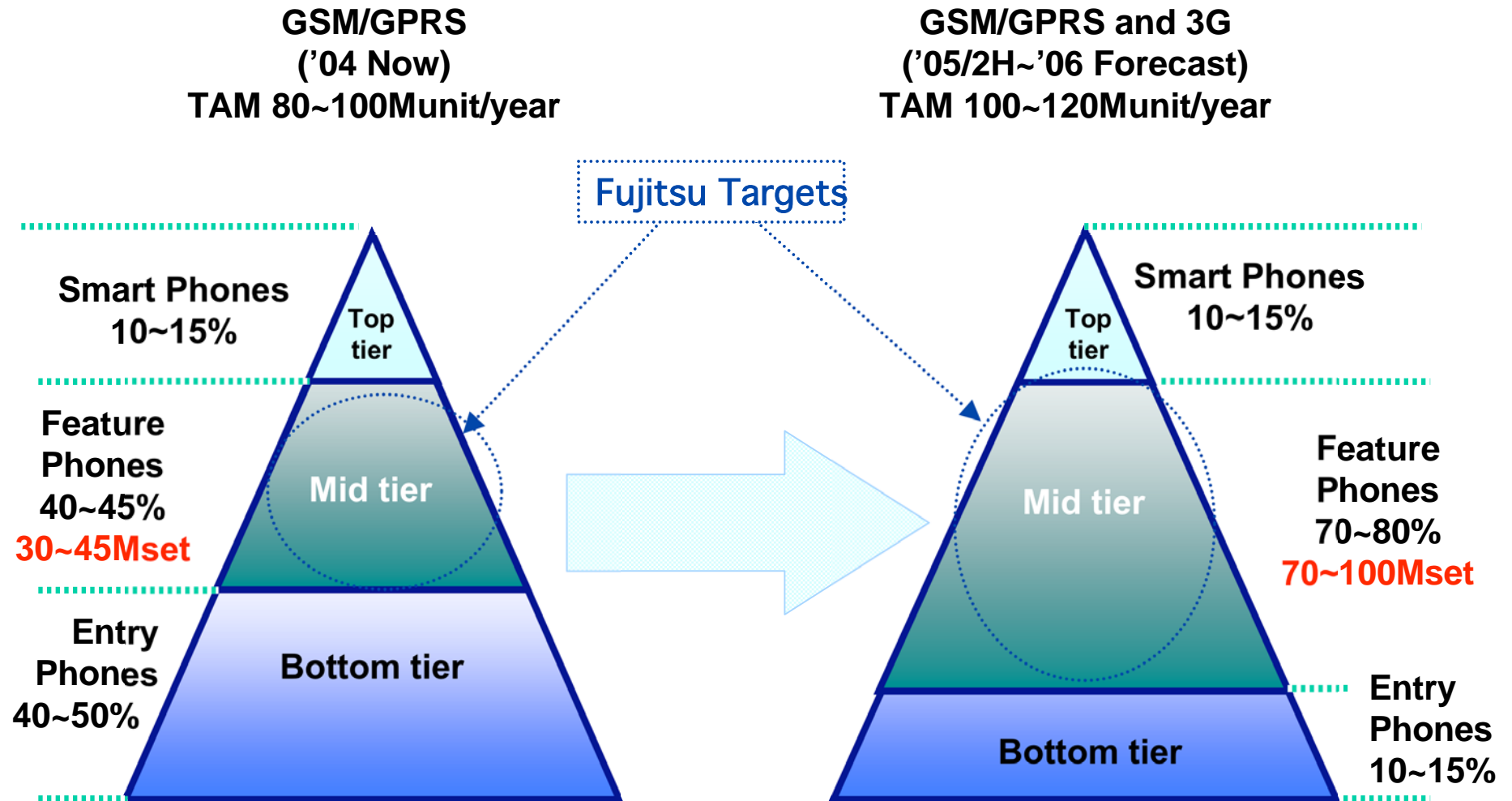
Generation Shift of Mobile Cellular Phones



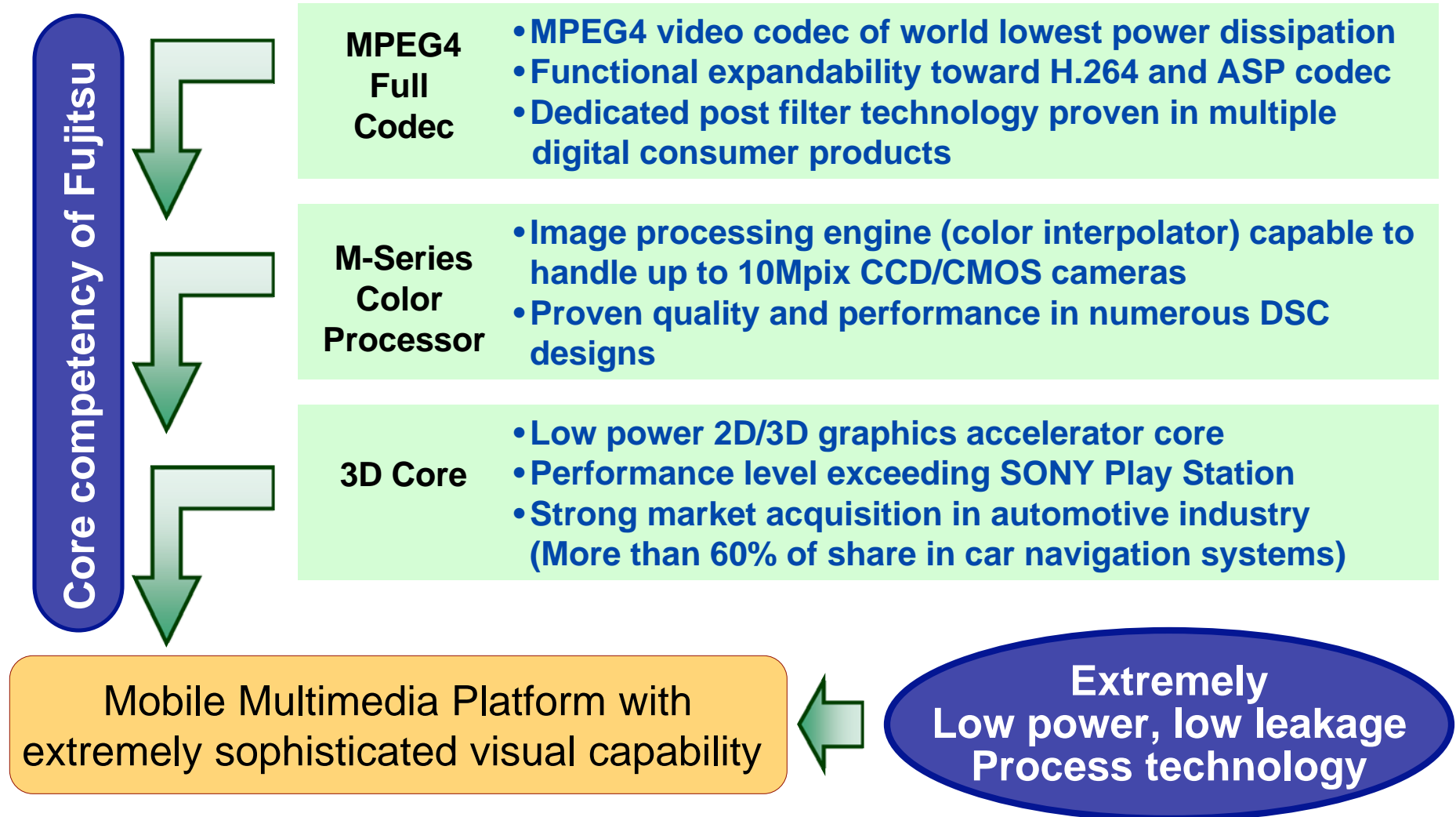
Features
of Cellular

Bit rate

China GSM Market - Now to '05/2H~'06



Core Capabilities

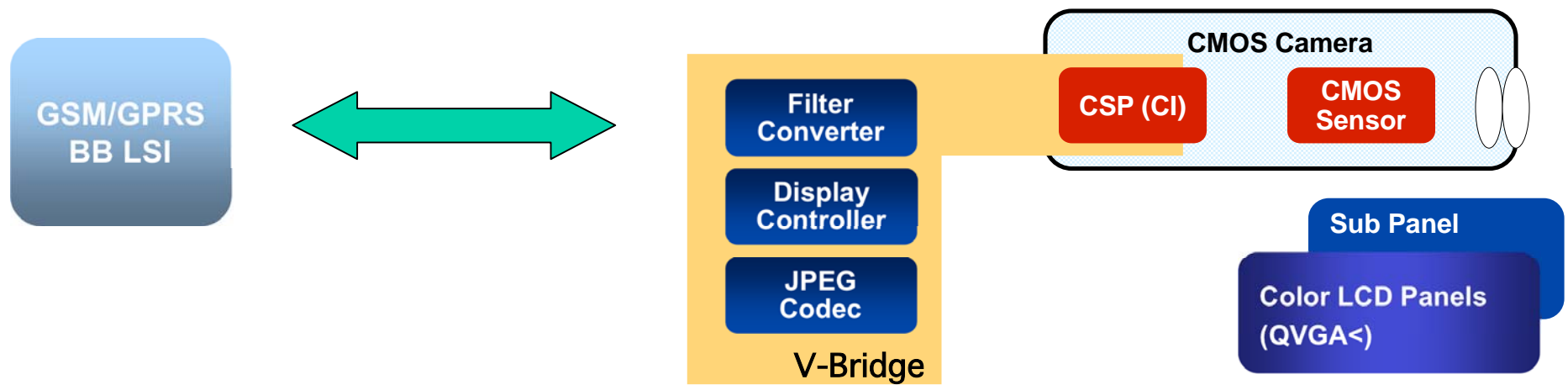


Tried in the Real World

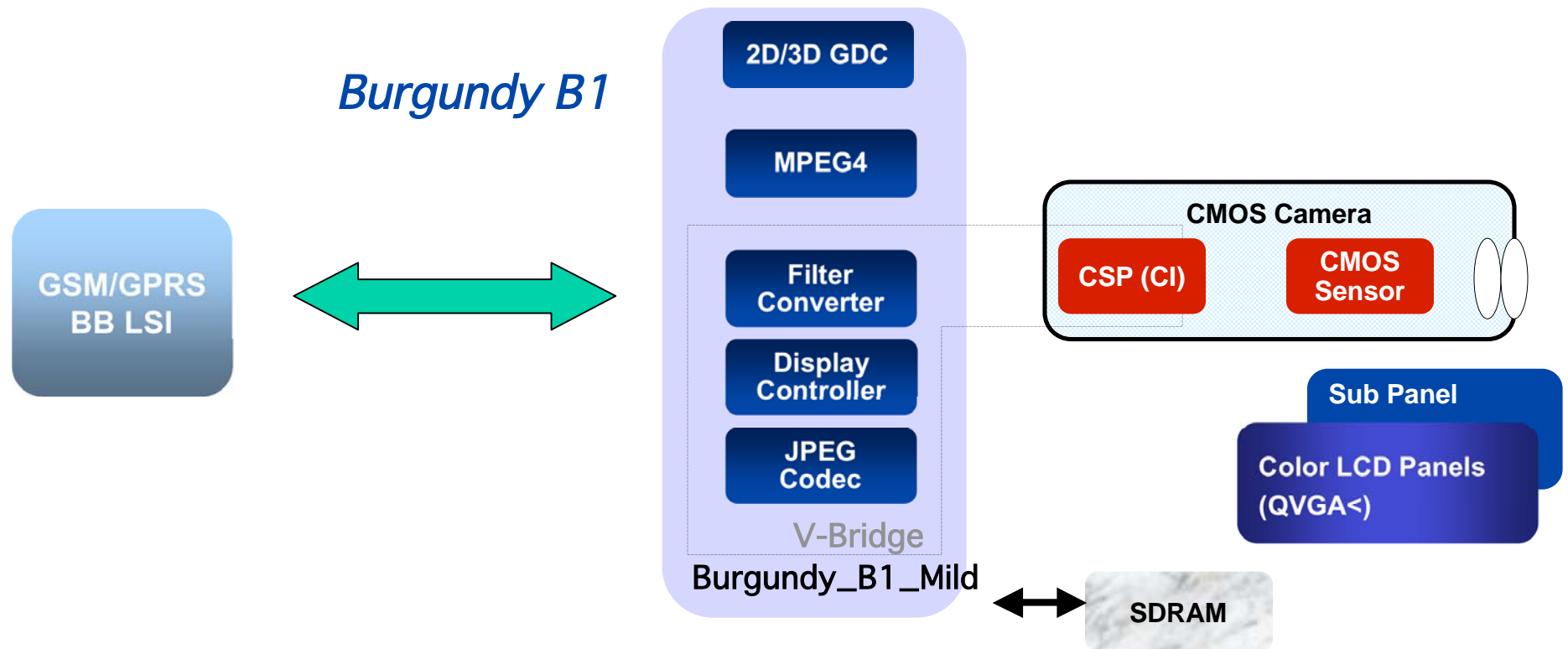


Plan for Mobile Products

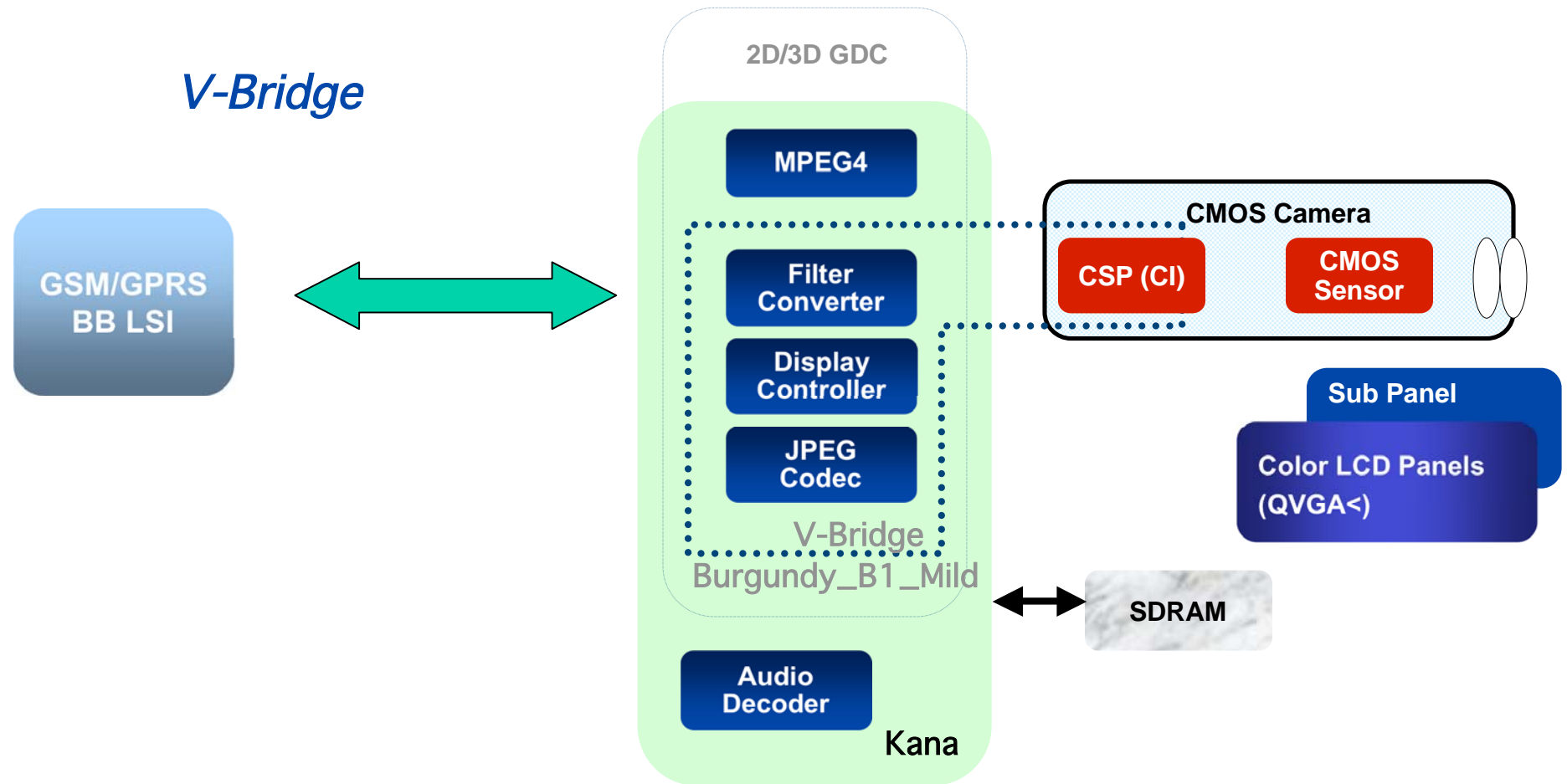
V-Bridge



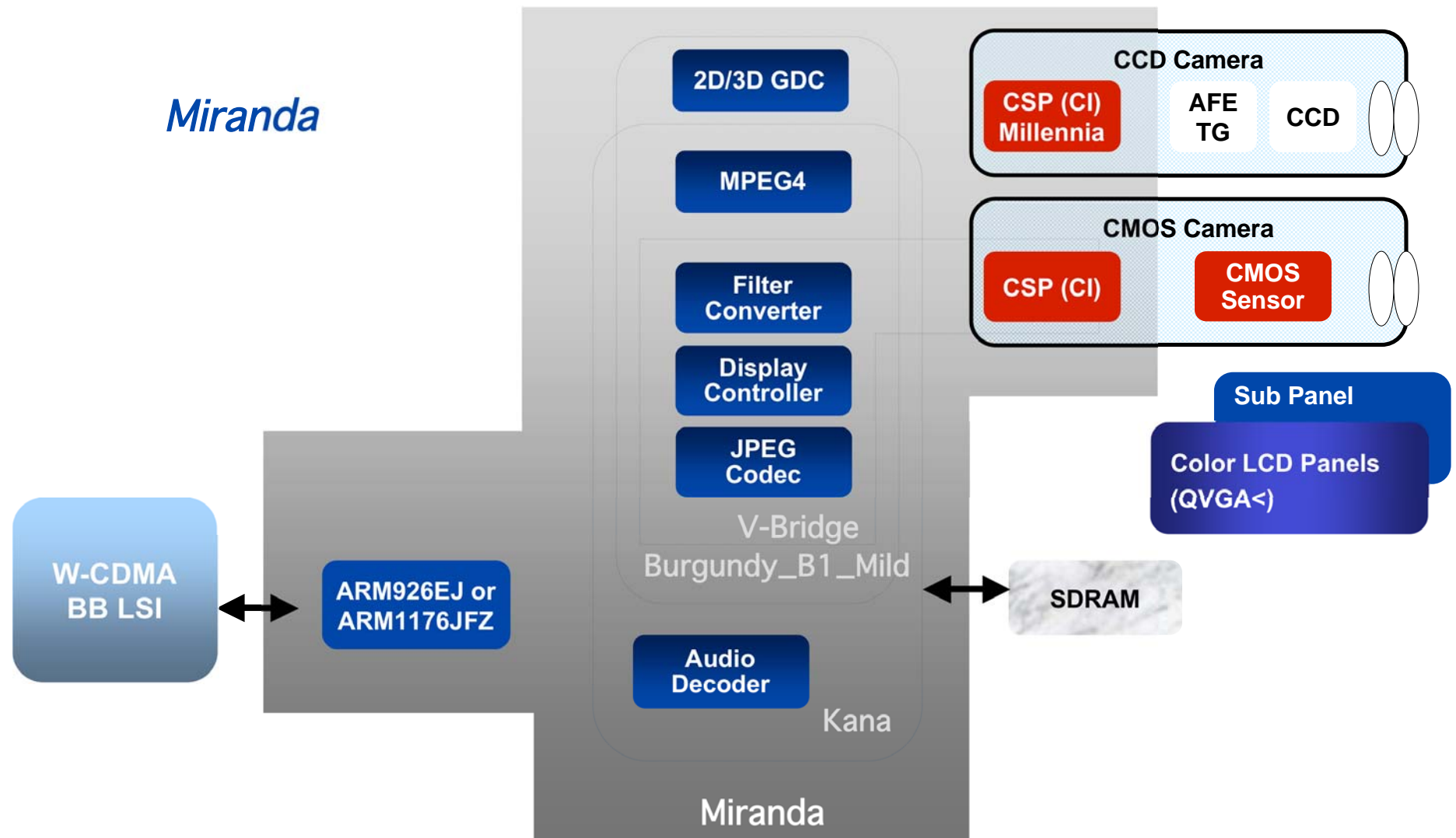
Plan for Mobile Products



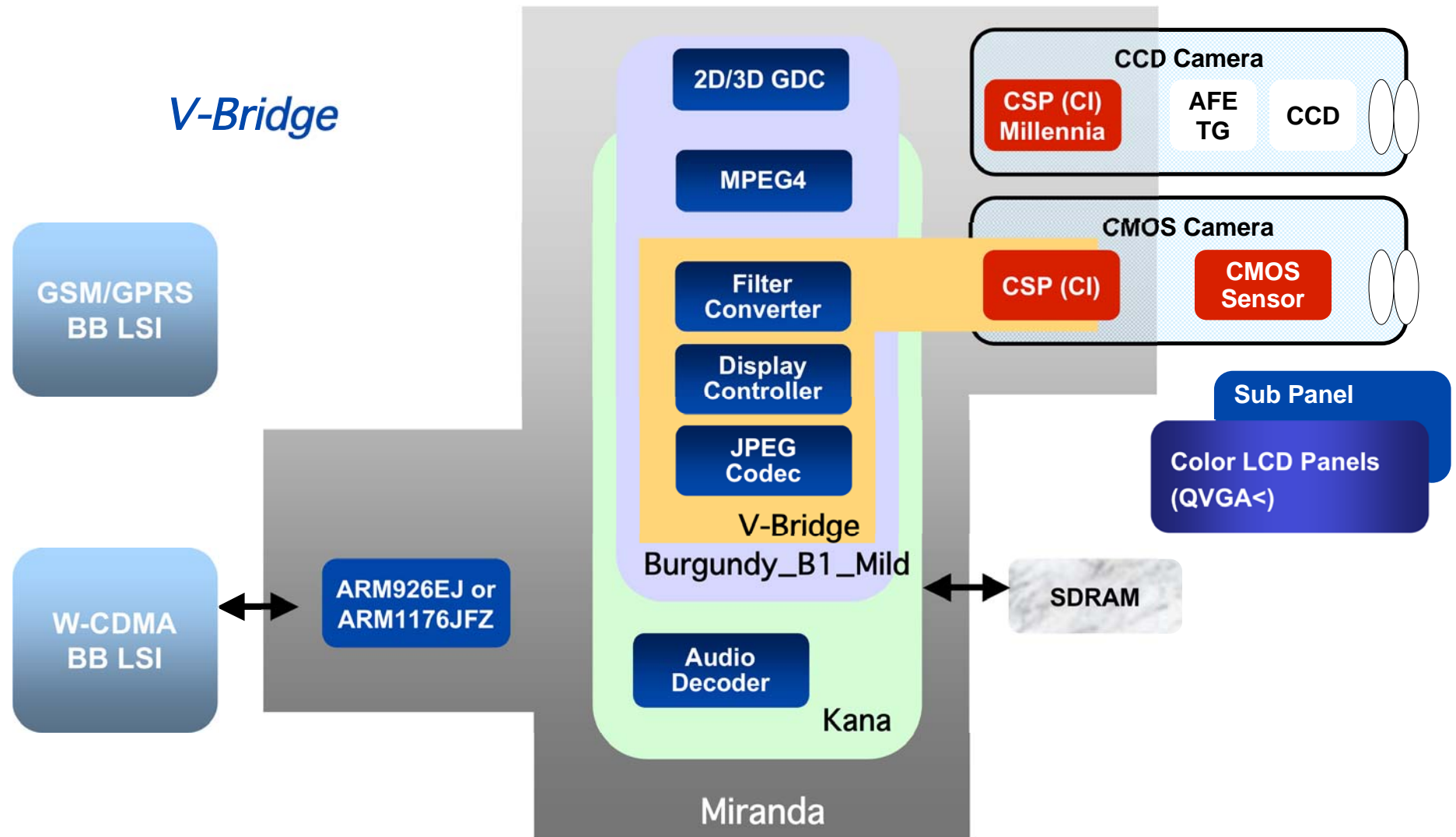
Plan for Mobile Products



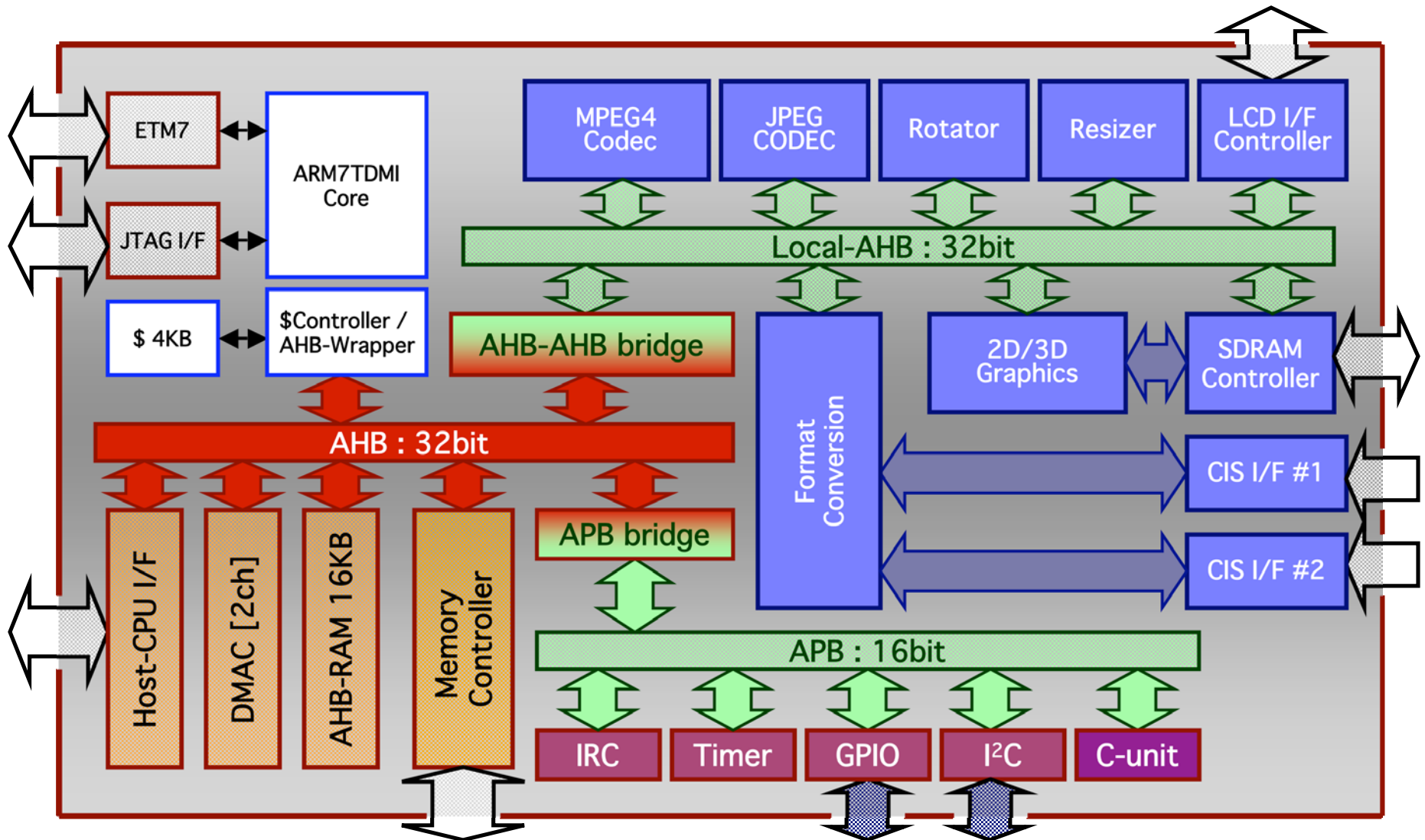
Plan for Mobile Products



Plan for Mobile Products

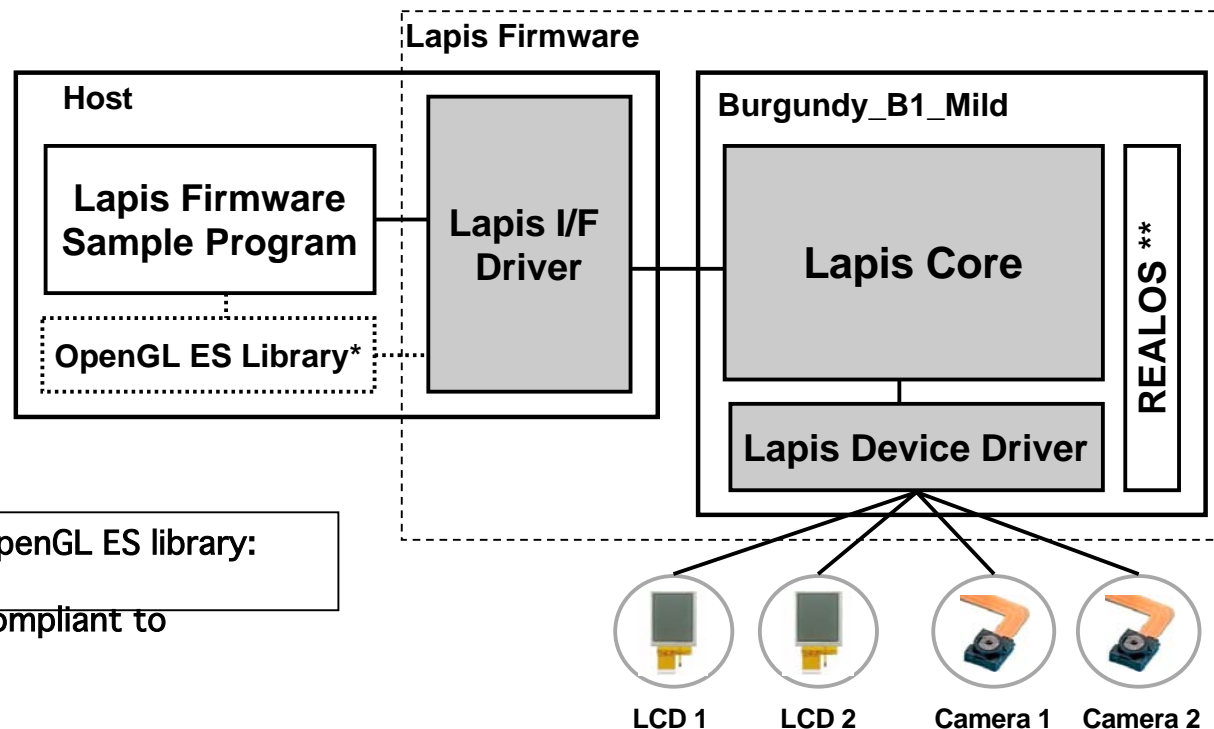


Burgundy_b1_mild Block Diagram



Software Framework “Lapis”

- Lapis Firmware enables host application control Burgundy_B1_Mild as high-functionality I/O device by controlling each hardware block.**
- Host application can utilize many modes/functions provided by Lapis Firmware by issuing the command and handling the event.**



* Schedule for OpenGL ES library: TBD

** Fujitsu RTOS compliant to uITRON4.0

Software Framework “Lapis”

u Lapis Firmware includes:

1) Lapis Core (Object module)

Image processing software on ARM7TDMI

2) Lapis Device Driver (Source code)

Driver software for camera modules and LCD connected to Burgundy_B1_Mild. Any camera and LCD selected by the customer can be adopted by modifying this driver

3) Lapis I/F Driver (Source code)

- a) I/F software to utilize Lapis Firmware functions from host application
- b) Driver software to utilize 2D/3D Graphics Accelerator functions of Burgundy_B1_Mild from host applications (Java, Web Browser etc.)

Lapis Firmware sample program (source code) will be provided.

The Features We Must Support



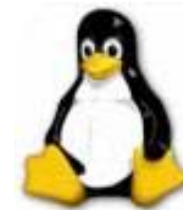
The OS Challenge



Nucleus

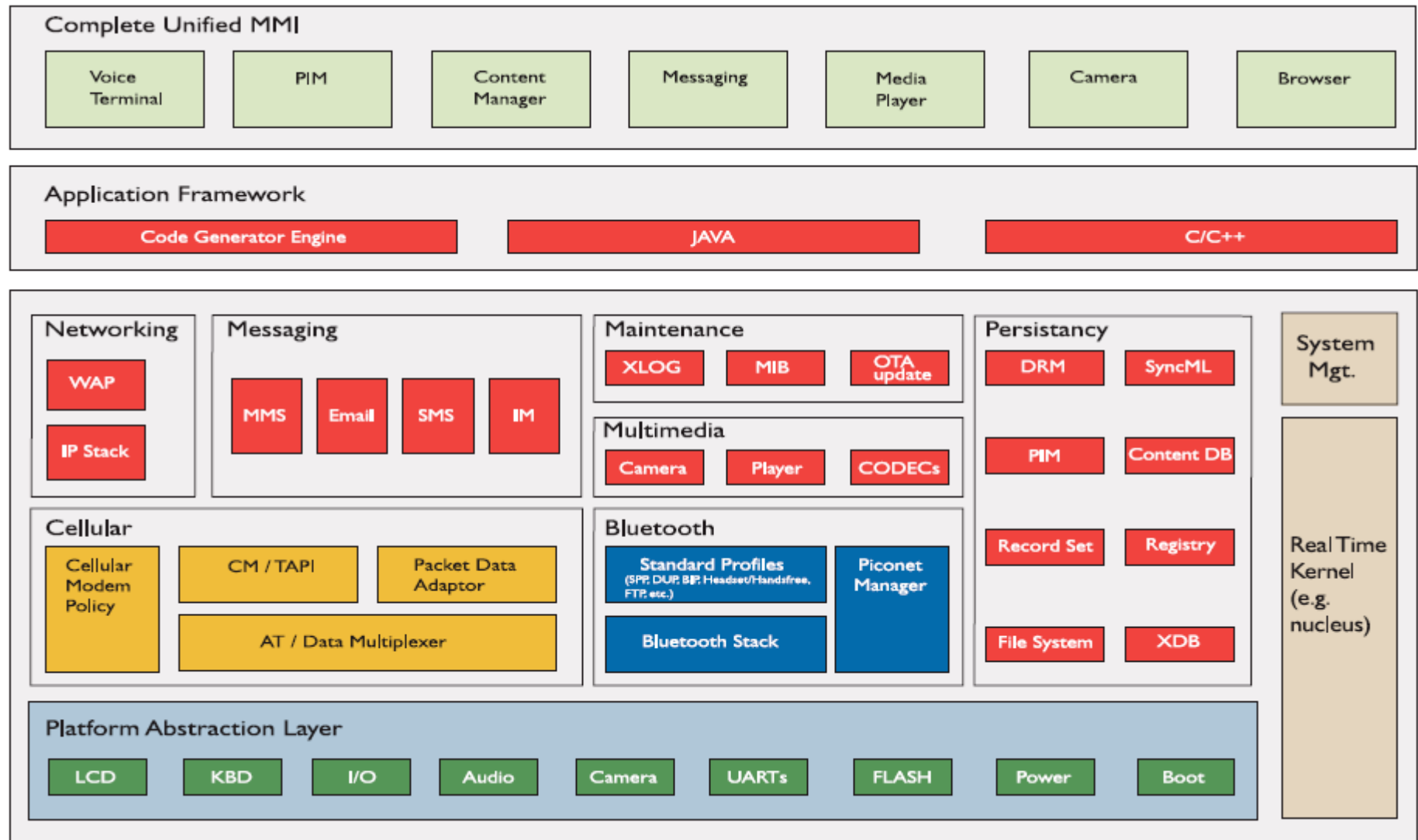


IXI – Connect OS™

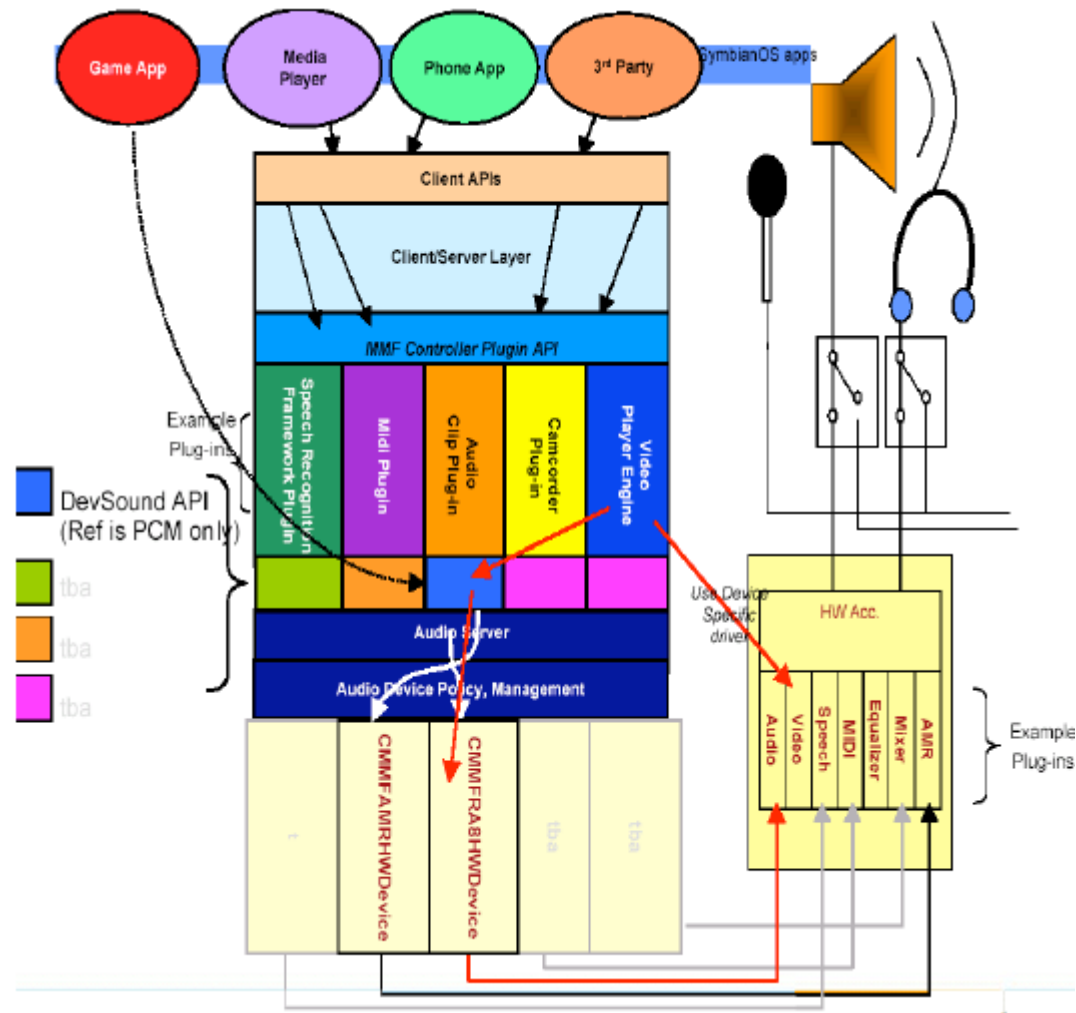


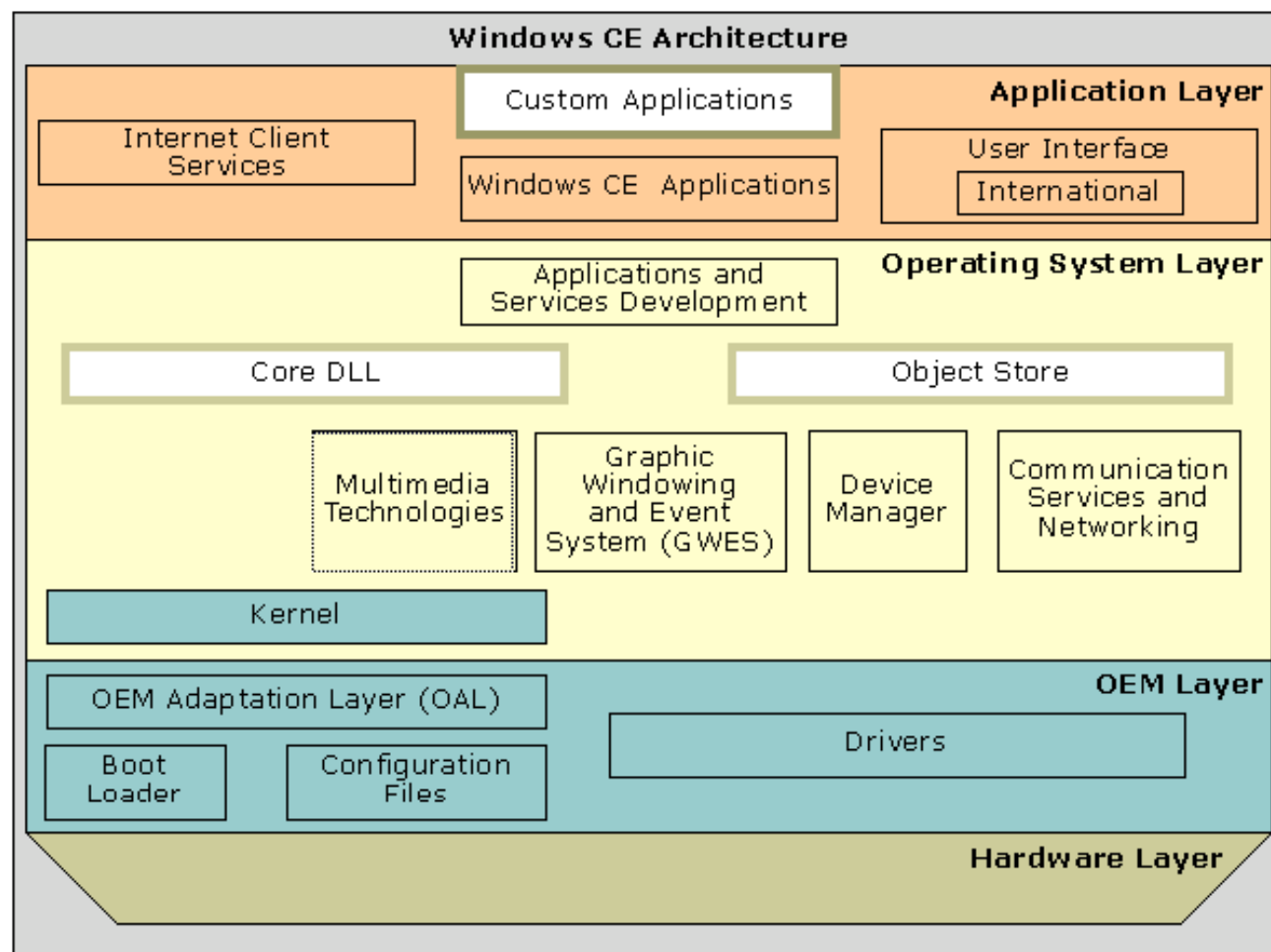
Embedded
Linux

IXI-Connect OS™



Multimedia Framework





Drivers...Drivers...Drivers

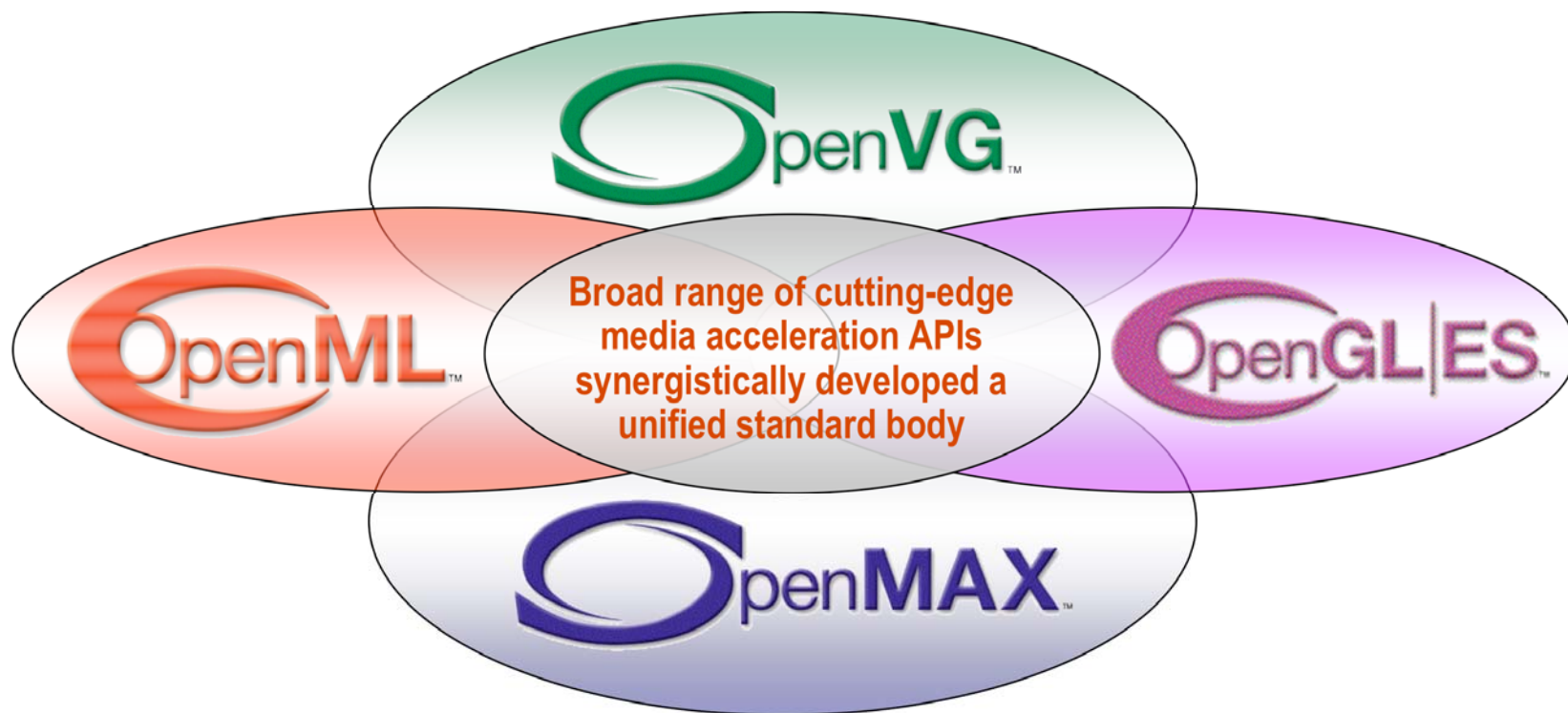
Seven Major Chip Functions

Six OS Environments?

=

Lots of OS Development Kits and Licenses

Lots of Device Drivers





Nucleus



IXI – Connect OS™

3D Applications



OpenGL ES

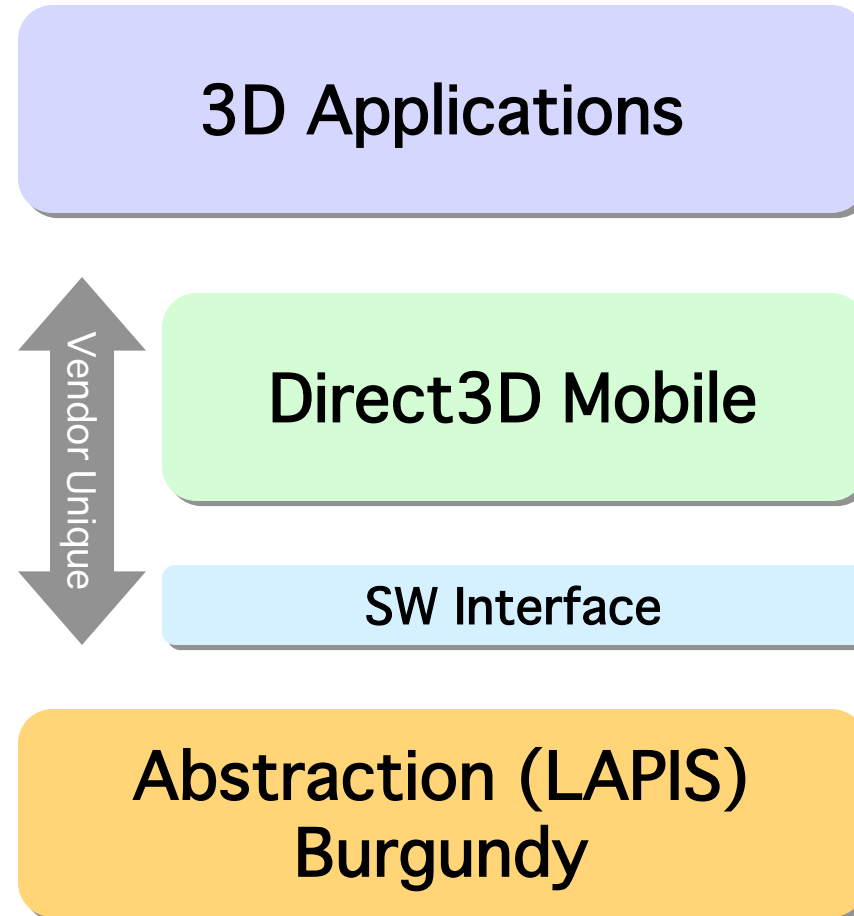
SW Interface

Abstraction (LAPIS)
Burgundy



Embedded
Linux

Not So Fast...



Other Stuff

2D Graphics

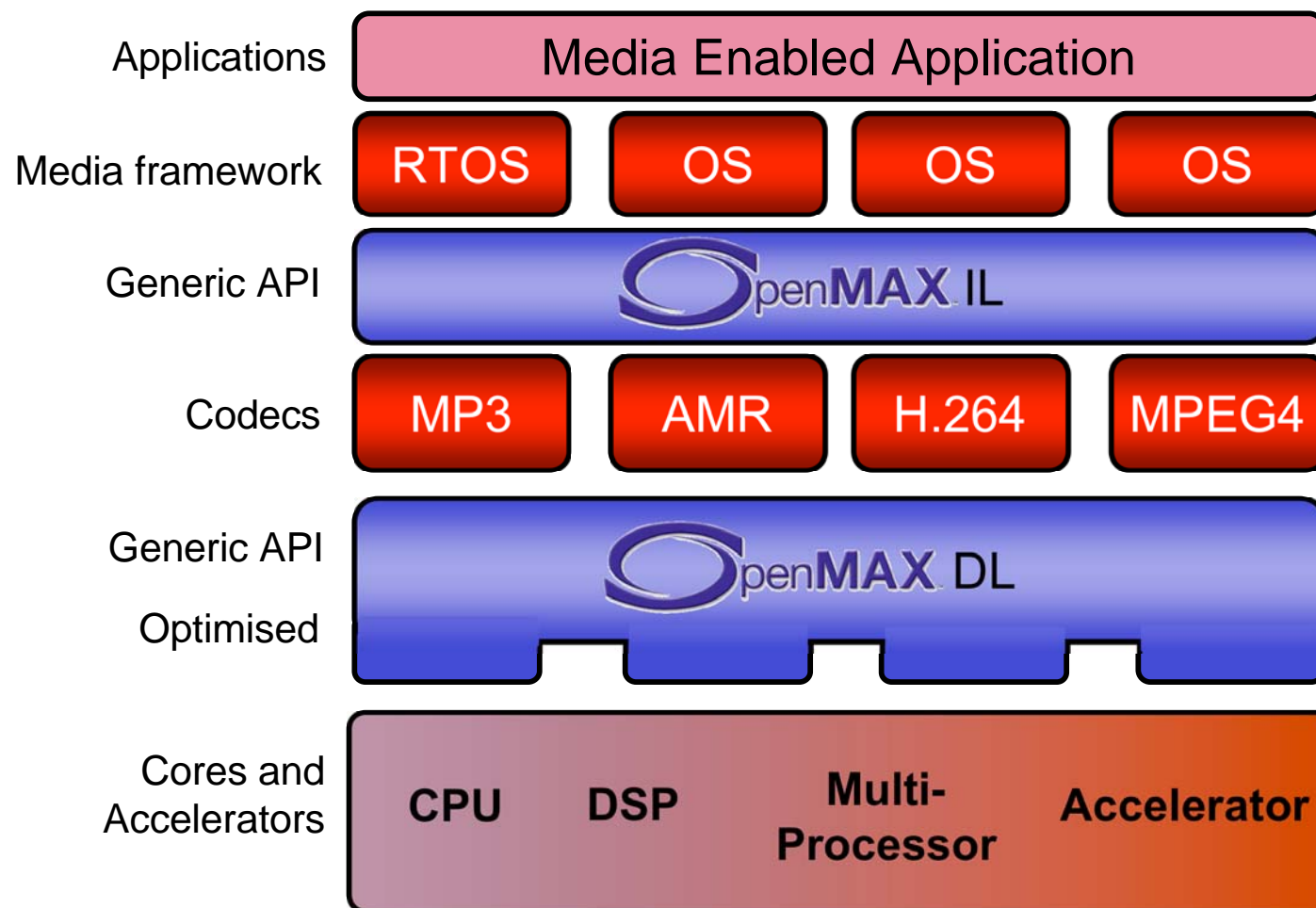
MPEG-4

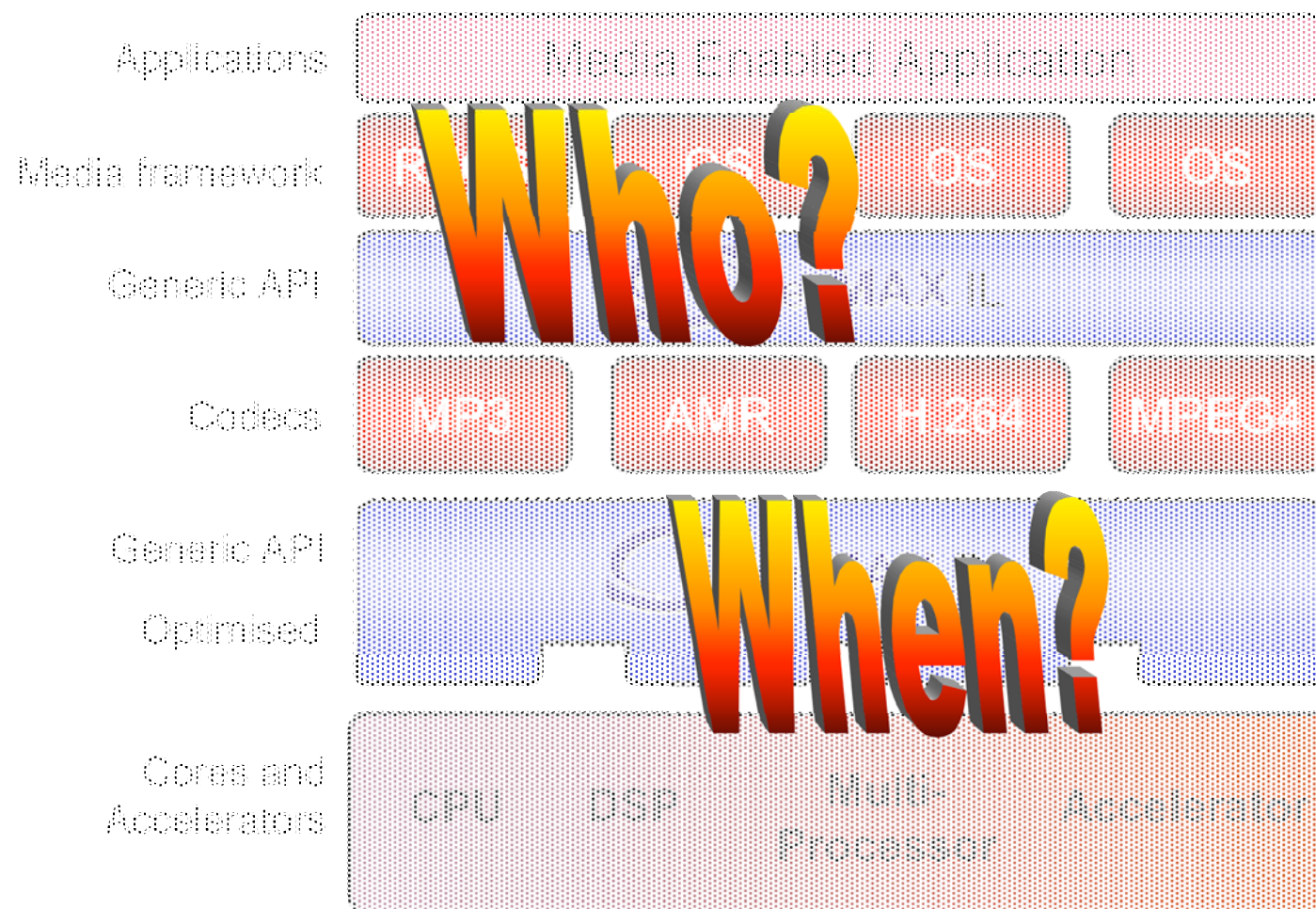
JPEG

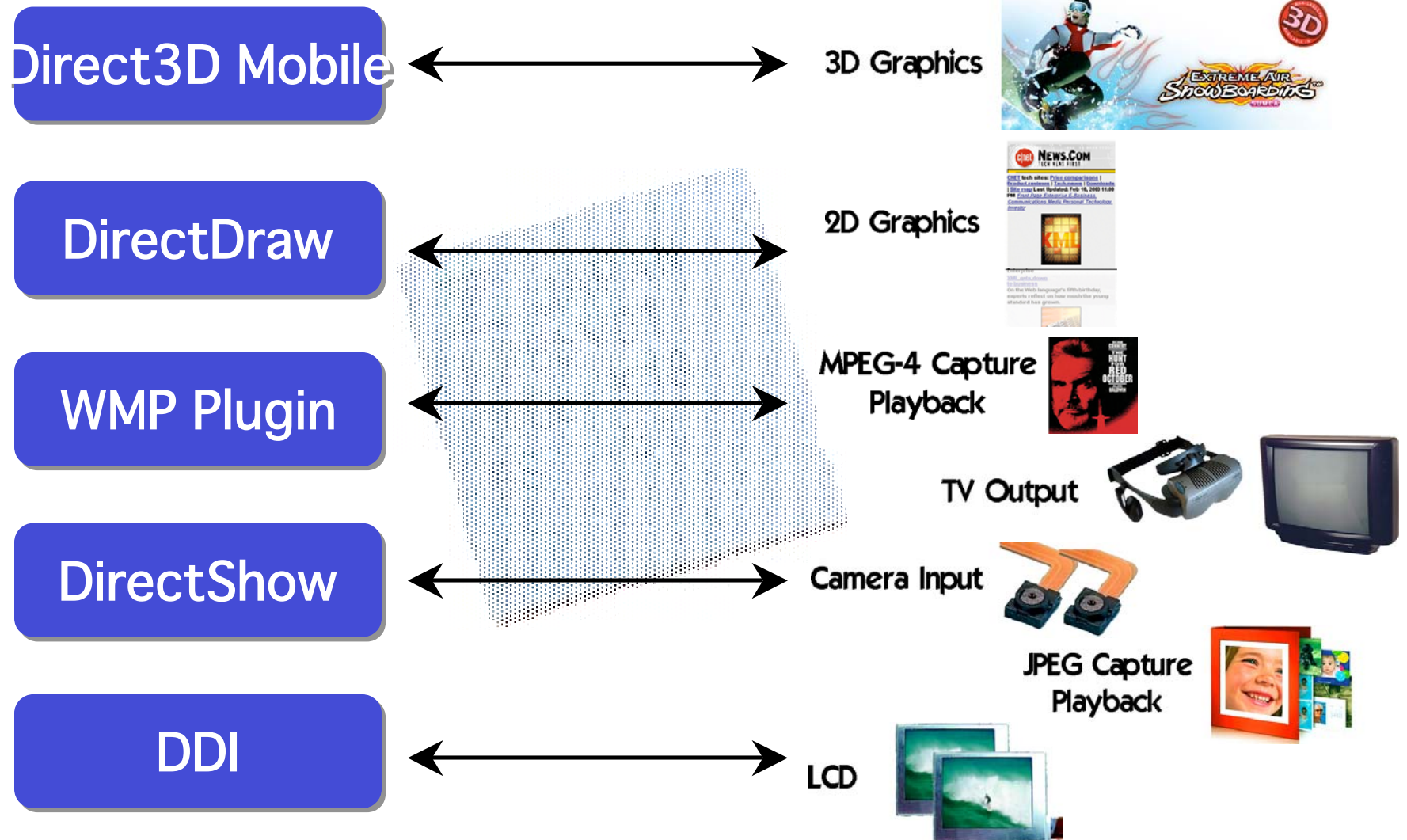
LCD

Camera

TV Out







Eventually Two Standard Sets



Questions?

<http://www.fujitsu.com/us/services/edevices/microelectronics/otherassps/mobilemedia/>