Embedded Linux from a Trusted Source

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LinuxLink on beagle

- building Linux from the ground up

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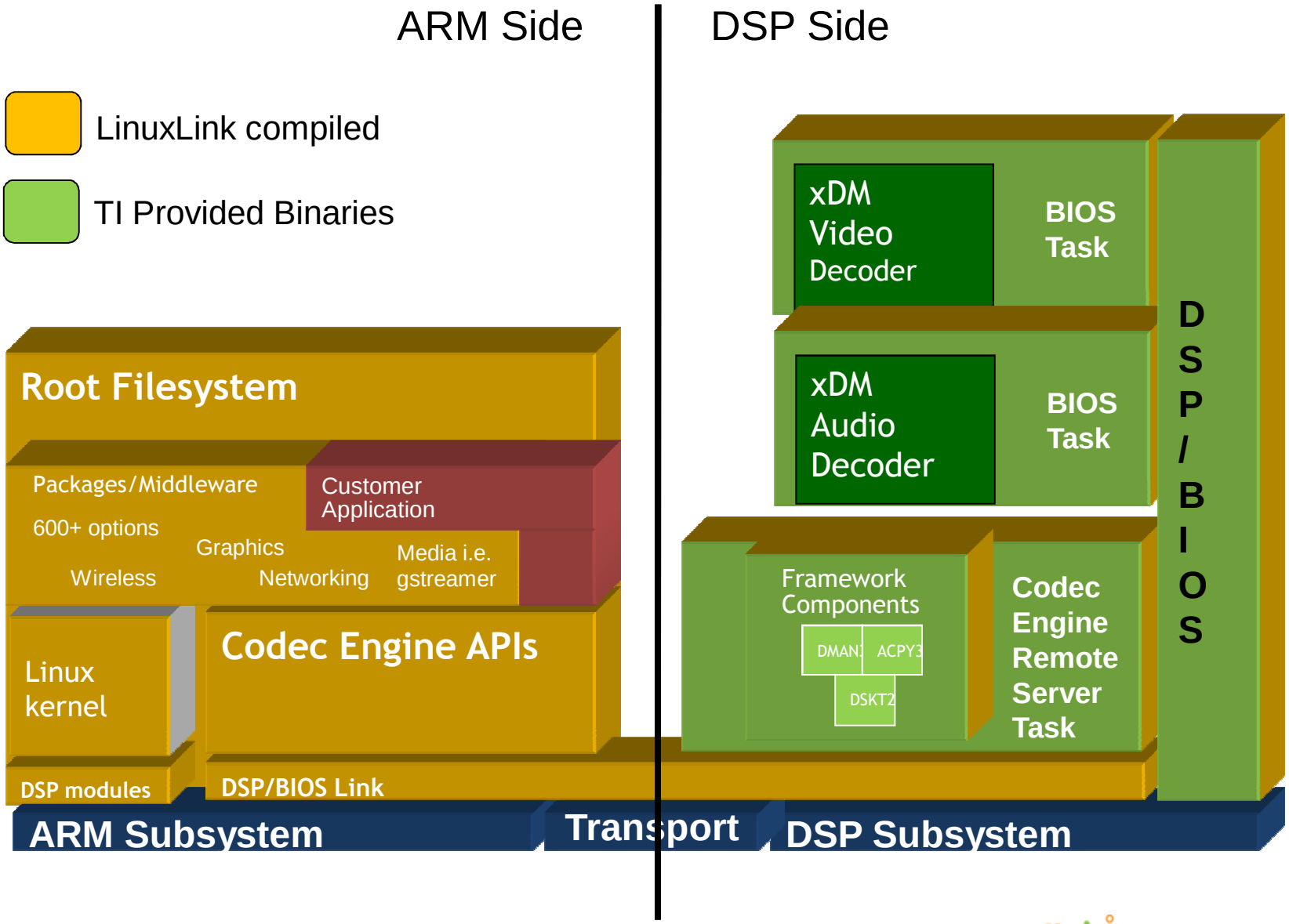
LinuxLink DVSDK alignment



Linux platform optimized for DVSDK

- Tested with TI Provided Demo Apps

- RFS details:
  - Footprint – 8.8MB
  - Format – ext4
  - Contents:
    - busybox
    - termcap
    - zlib
    - dropbear
    - DSPLink
    - uClibc

Note: DSPLink components are fetched from Texas Instruments servers

- Linux kernel details:
  - TI git tree based
  - Timesys configured
    - Fast booting
    - Optimized footprint

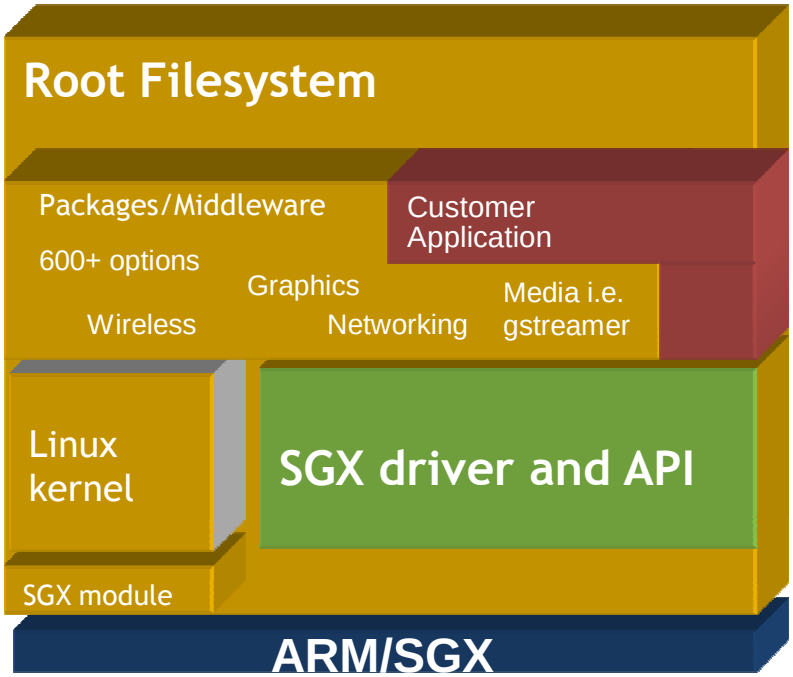
LinuxLink OpenGL ES alignment

ARM Side

LinuxLink delivered

LinuxLink compiled

TI provided



- Integrate non-open source components with a baseline Linux platform
- Enable application development of products with 3D graphics requirements

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Linux platform optimized for OpenGL ES

- RFS details (X based) :
  - Footprint – 80MB (15MB in demo apps)
  - Format – ext4
  - Contents:
    - alsa-lib
    - alsa-plugins
    - alsa-utils
    - atk
    - busybox
    - cairo
    - dbus
    - dnotify
    - evieext
    - expat
    - font-alias
    - font-bitstream-75dpi
    - fontconfig
    - font-cursor-misc
    - font-micro-misc
    - font-misc-misc
    - font-util
    - freetype
    - gconf
    - giflib
    - glib2
    - gtk
    - libdrm
    - libXinerama
    - libxkbfile
    - libxml2
    - libXpm
    - libXrandr
    - libXrender
    - libfontenc
    - libICE
    - libIDL
    - libjpeg
    - libmatchbox
    - libpng
    - libpthread-stubs
    - libSM
    - libtiff
    - libX11
    - libXau
    - libxcb
    - libXdamage
    - libXdmcp
    - libXext
    - libXfixes
    - libXfont
    - libXfontcache
    - libXft
    - libxsettings
    - libxsettings-client
    - libXt
    - libXxf86dga
    - matchbox-common
    - matchbox-desktop
    - matchbox-panel
    - matchbox-theme-sato
    - matchbox-window-manager
    - ncurses
    - omap35x-graphics-sdk
    - openssl
    - tslib
    - xinit
    - xkbcomp
    - xkeyboard-config
    - xorg-server
    - xproto
    - xtrans
    - zlib
- Linux kernel details:
  - TI git tree based
  - Timesys configured
    - Fast booting
    - Small footprint

What is LinuxLink

Our goal is to help in the adoption of an Open Source Linux in commercial applications. We help companies that are new to Linux or pressed by time to leverage the latest open source code and to customize it to meet their specific needs. We also educate on the Open Source Linux technology

More Linux Products = Higher Linux adoption

How it works: LinuxLink provides an automated and intelligent make-based , easy to use build system with access to hundreds of open source packages. It also allows customers to integrate easily with non-open source components

Our typical customer is a company developing a Linux-based device for applications such as industrial control, networking, medical equipment, instrumentation, consumer electronics or military/aerospace systems.

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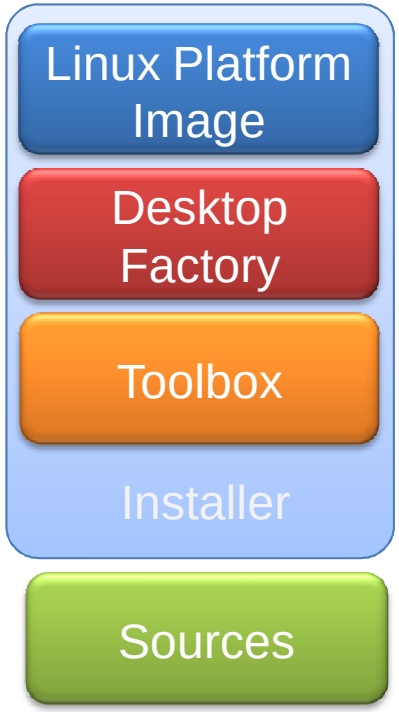
Assembling a beagle Platform via Factory

- Select a pre-configured kernel
  - Aligned with semi & community sources
  - Patched for your development kit
- Select GNU cross-build environment
  - Recommended toolchain/version(s)
  - Glibc/uClibc libraries and header files
- Assemble RFS; tune for your project
  - Select from 500 packages - grouped by app
  - Dependency checks & size estimates
  - Recommendations — by app and popularity
- Optimize/format image
  - Reduce footprint — pruning/stripping options
  - Select image format (ex. initramfs, jffs2, ubifs)

Online Factory Output



View a build

Configure/Patch/Build via Desktop Factory

- Receive alert when your build is ready
  - Download to desktop – run the installer
  - Pull relevant platform sources (ex. kernel, RFS, toolchain)
- Apply patches
  - Sync patches with Timesys and communicty git
  - Pull a la carte patches as text files from Timesys or 3rd parties
- Configure with standard “menuconfig”
  - Configure kernel
  - Integrate/configure over 500 Timesys-hosted package sources and associated dependencies
  - Notification of relevant updates, based on workorder
- Build with standard “make”
  - Properly configured GNU cross-tools
  - Easily scriptable
  - Repeatability via Factory Workorder and Recipe

Obtain Help with Common Development Tasks

- "How-To" documentation for common development tasks
  - How to Boot from NAND Flash
  - How to Use USB Gadget Ethernet
  - How to Use OProfile

View the docs

- Self education on Open Source Linux
  - LinuxLink Radio
  - Webinars
  - Community Forums
- Optional "Get-Started" services
  - Training Courses
  - Development Coaching Hours