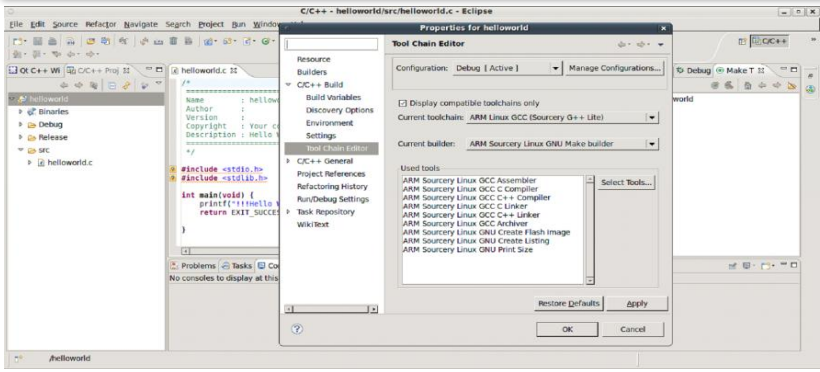
TI software makes development easy for DM8168 and DM8148 DaVinci™ digital media processors

Comprehensive software for DM8168 and DM8148 DaVinci™ digital media processors

TI's EZ SDK – royalty-free and no-risk environment

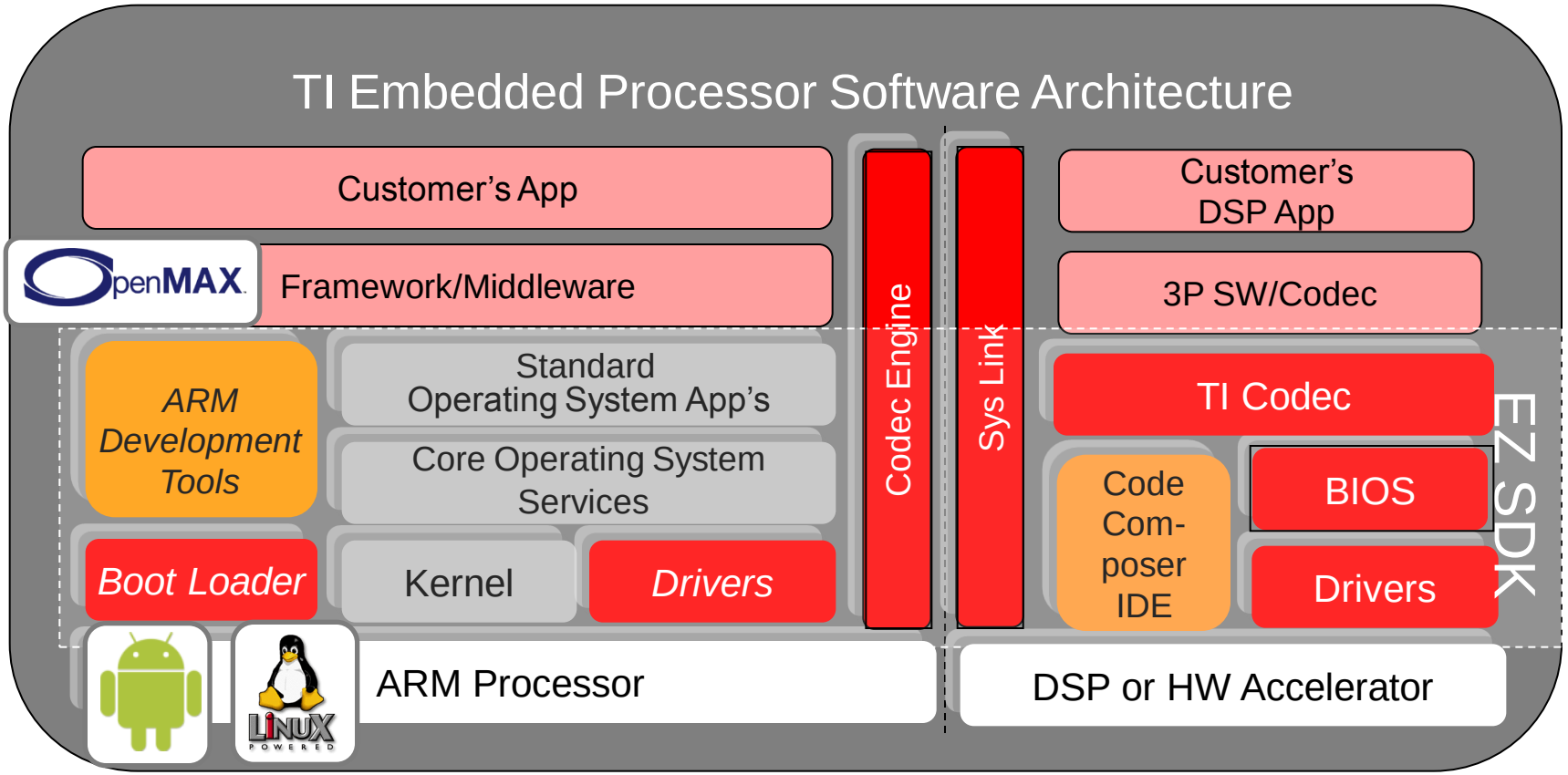
- **Linux** support now based on 2.6.37+ kernel
- **Android** Gingerbread support coming 2Q 2011
- **Audio/video codecs:** H.264, MPEG2, MPEG4, G.711, AAC and more
- **Application examples:** preconfigured projects for networked audio/video
- **Application launcher and unified installer for all target and host applications**
  - Quick start development
- **CCSv5.0 (Eclipse 5.0): Compile, build, debug**
  - CodeSourcery Lite gcc tool chain
  - Qt graphics SDK plug-in



Active open source community and large ecosystem of developers:

RealView Tools by ARM · CodeSourcery · Qt · Linux Powered · Android · gstreamer · OpenMAX

Complete software architecture makes development easy for DM8168 & DM8148 DaVinci™ digital media processors



= Industry-standard OS S/W component – free

= TI-provided components - Free

= Customer, third-party code or open source

DM8168 and DM8148 DaVinci™ digital media processors leverage OpenMAX™

What does OpenMAX allow developers to do?

OpenMax allows developers to easily integrate the applications they have developed and leverage the latest application software from the open source community with the number of readily available components conforming to a standardized API through the industry-standard open source framework. It also allows developers to carry their own application software across multiple processors like never before.

Why OpenMax?

- Open standard interface for multimedia components supported by the Khronos Group (member supported industry consortium)
- Introduced in the mobile multimedia space – gaining grounds everywhere
- Ability to interface with standard media frameworks such as GStreamer and Maemo

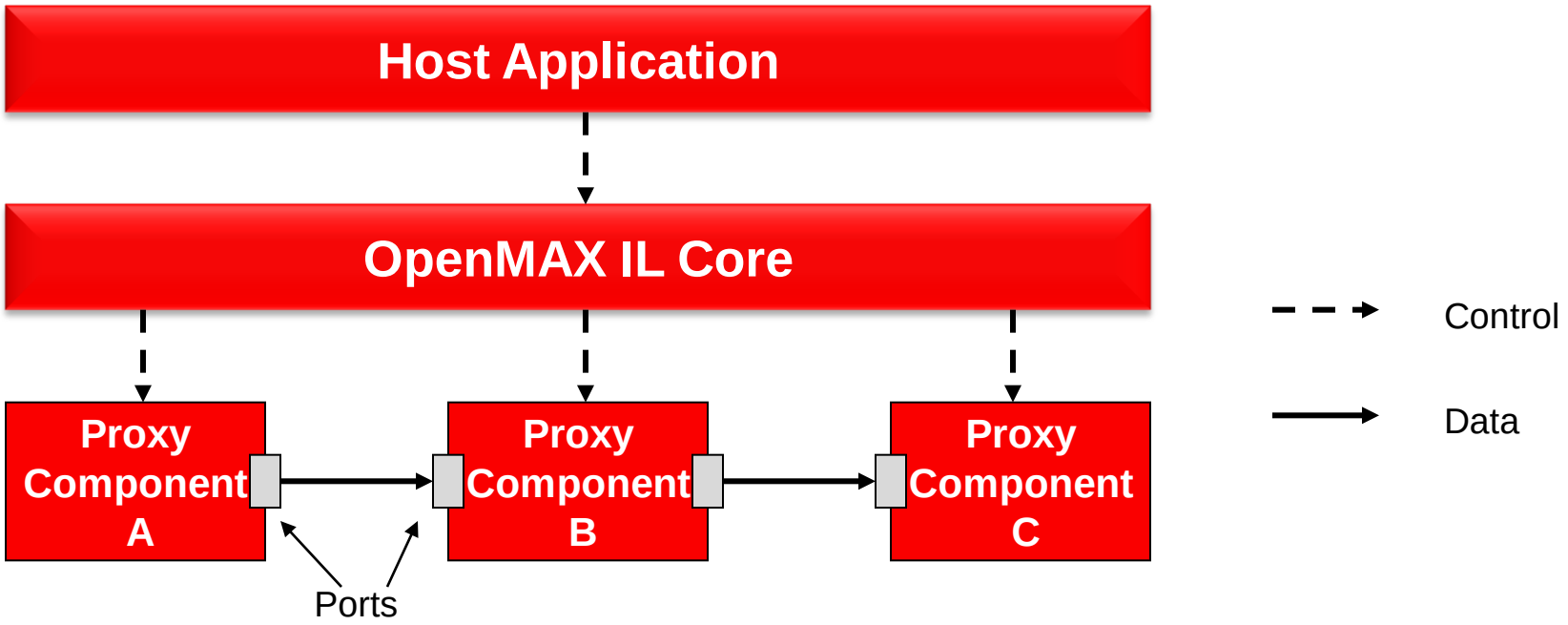
Why components?

- Modularity allows developers to design, implement and test each component independently (e.g., video encoder and decoder, display and composite, capture, video frame processing of noise filter, de-interlacer, and s caler)
- Flexibility enables developers to create a different topology of components to achieve varied use-cases

Why distributed?

- Components can run on any of the processors and be controlled from an application running on the ARM® Cortex-A8 host processor which issues commands to each component.
- Components can be connected to each other through data-pipes that can transcend processor boundaries

OpenMAX IL - Architecture



- OpenMAX IL Core + OpenMAX components
- OpenMAX IL Core
  - Manages communication between Client/Application and Components
  - Initialization and de-initialization of the components
  - Set up Connection between components
  - Providing APIs and macros to application so that application can interact with the component.
- OMX Component wrappers provide a common interface to the codec's, drivers, services

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