

DirectFB

CELF Technical Conference 2005

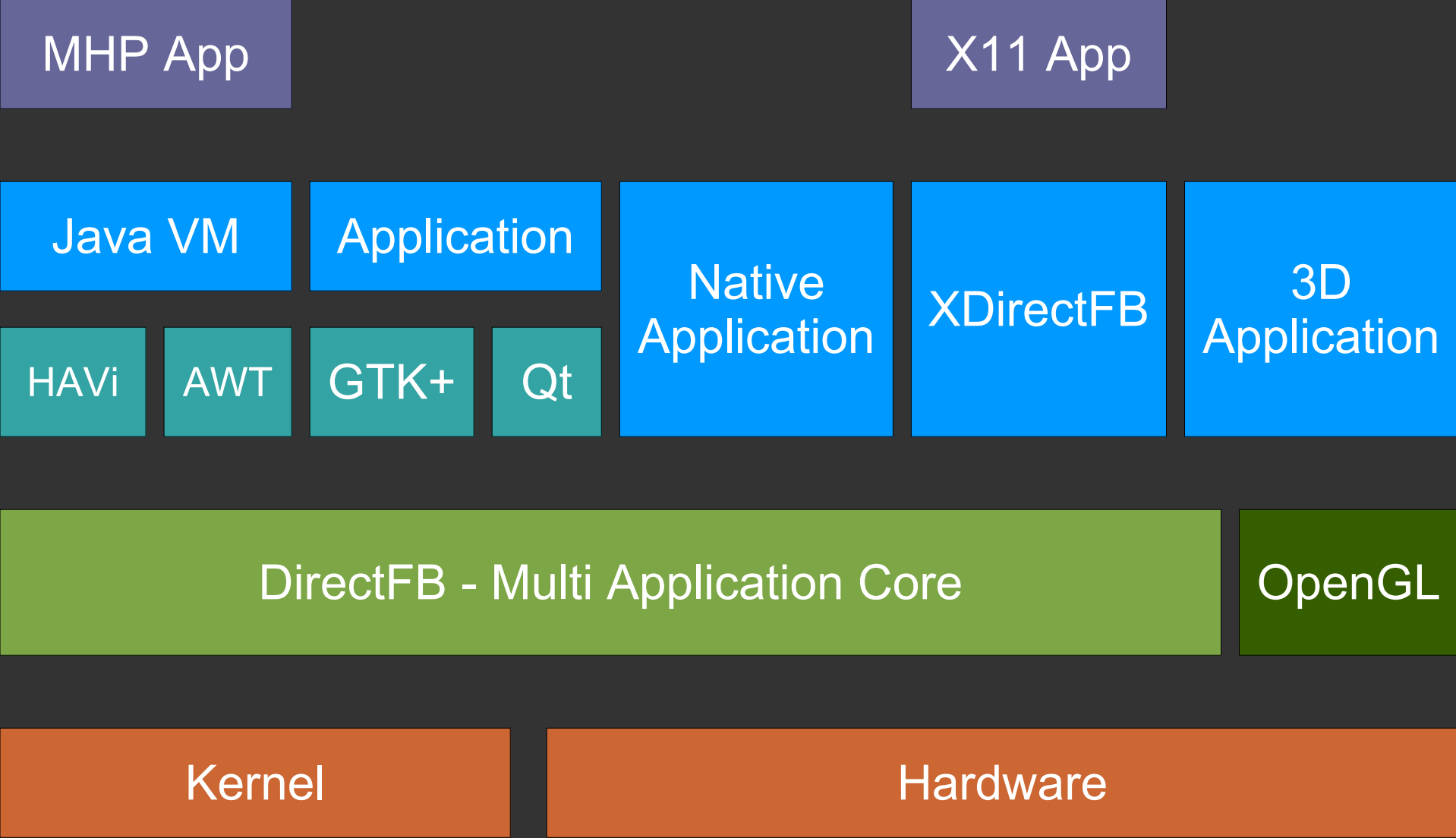
Overview

- ➔ Introduction
- ➔ System Diagram
- ➔ Design Goals
- ➔ Features
- ➔ Hardware Abstraction
- ➔ API Overview
- ➔ Driver Interfaces

Introduction

- ➔ Initiated in May 2000
- ➔ Motivated by and originally designed for the Multimedia Home Platform (MHP)
- ➔ Established technology for advanced embedded appliances
- ➔ Scalability allows state of the art desktop environments
- ➔ 2D Games take advantage
- ➔ Adoption of OpenGL makes it competitive in the 3D market

System Diagram



Design Goals

- ➔ Minimum overhead for CPU, RAM, Flash
- ➔ Maximum usage of and control over the underlying hardware
- ➔ Extensible interfaces
- ➔ Modularized system
- ➔ Versatile API
- ➔ Clean driver interfaces

Feature Excerpt

- ➔ Multiple graphics and video layers
- ➔ Many pixel formats (ARGB, YUV + planar)
- ➔ Accelerated graphics operations with software fallback mechanism
- ➔ Windowing system with alpha blending
- ➔ Video memory management (on/offscreen)
- ➔ Input devices including remote controls
- ➔ Multiple applications w/o client/server
- ➔ Fast anti-aliased text rendering

Hardware Abstraction

