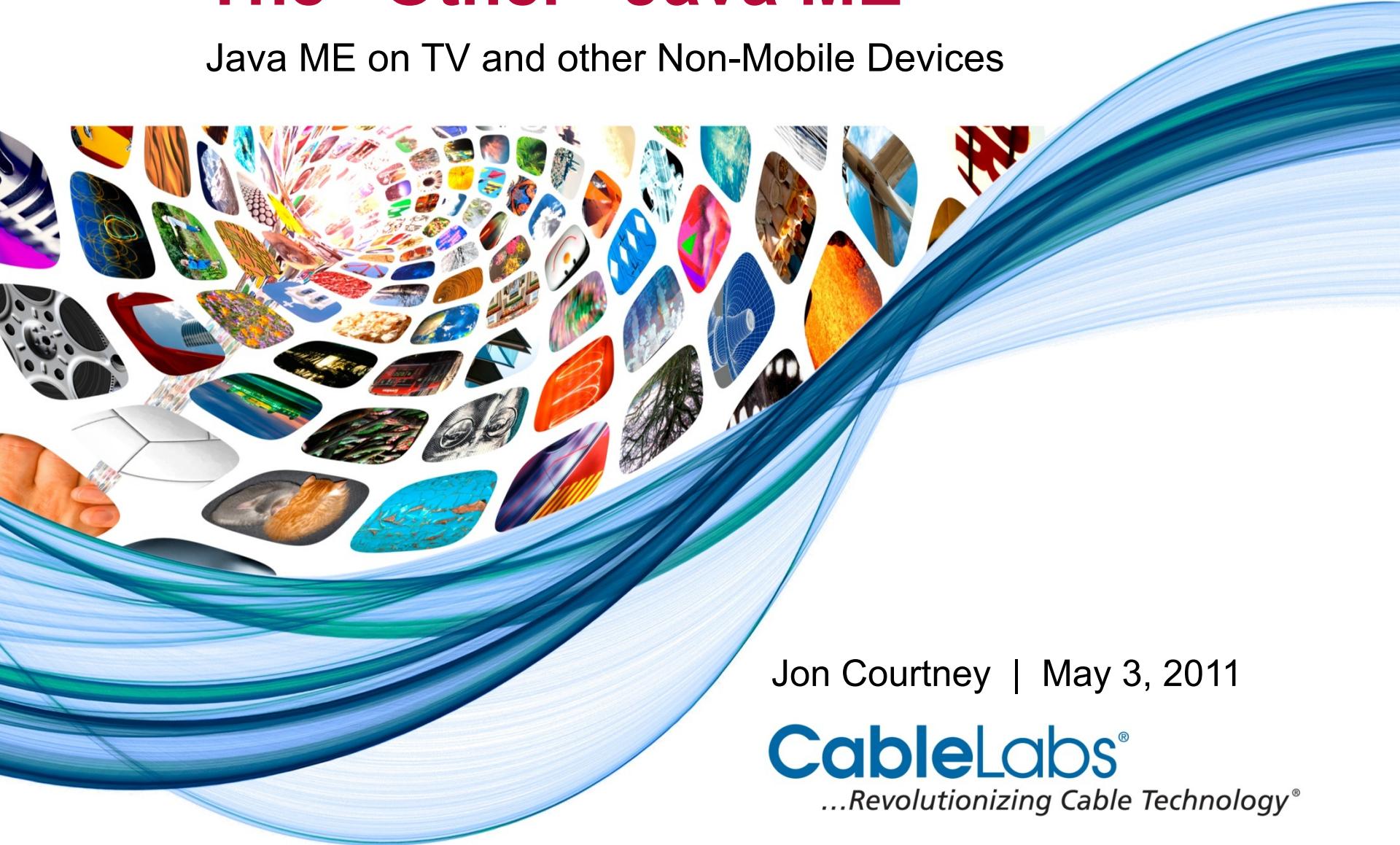


The “Other” Java ME

Java ME on TV and other Non-Mobile Devices



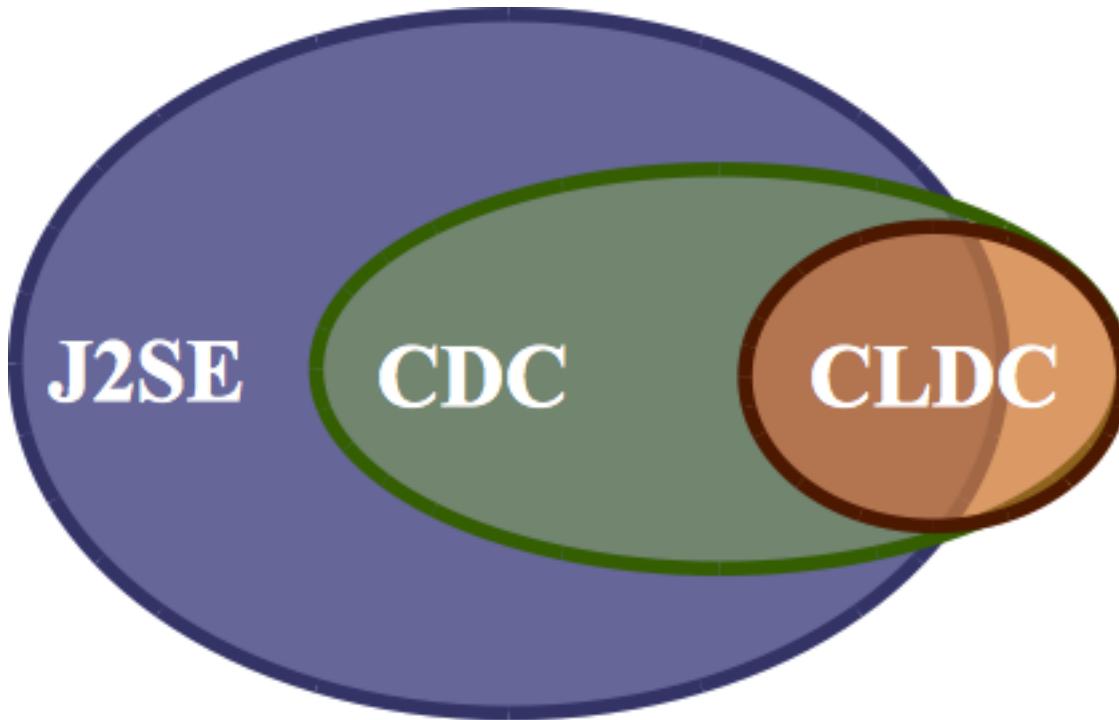
Jon Courtney | May 3, 2011

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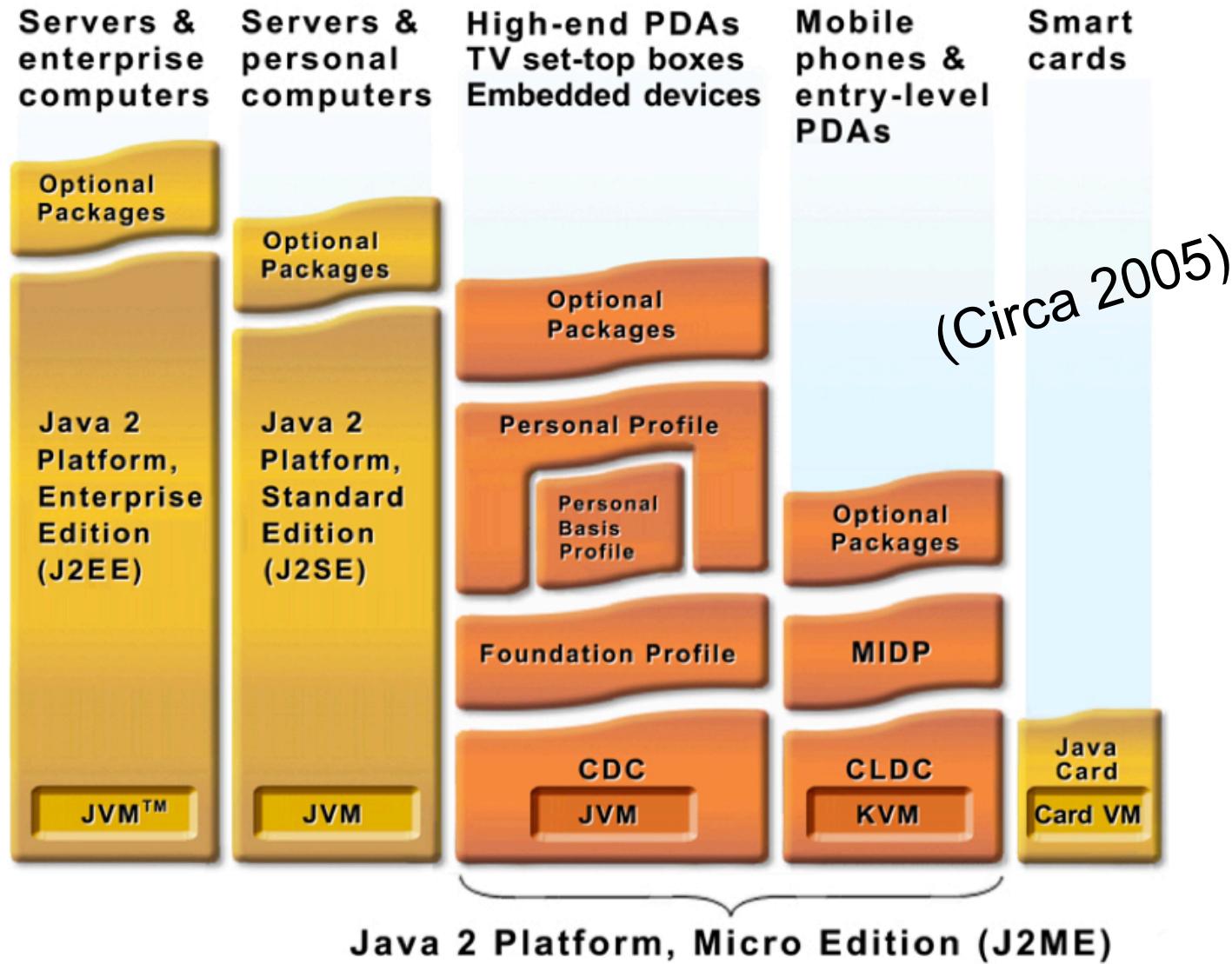
Agenda

- CDC vs. CLDC vs. J2SE
- CDC Markets Then & Now
- Example: Blu-ray
- Example: OCAP / <tru2way>
- Technology Gaps & Concerns

CLDC < CDC < J2SE < J2EE

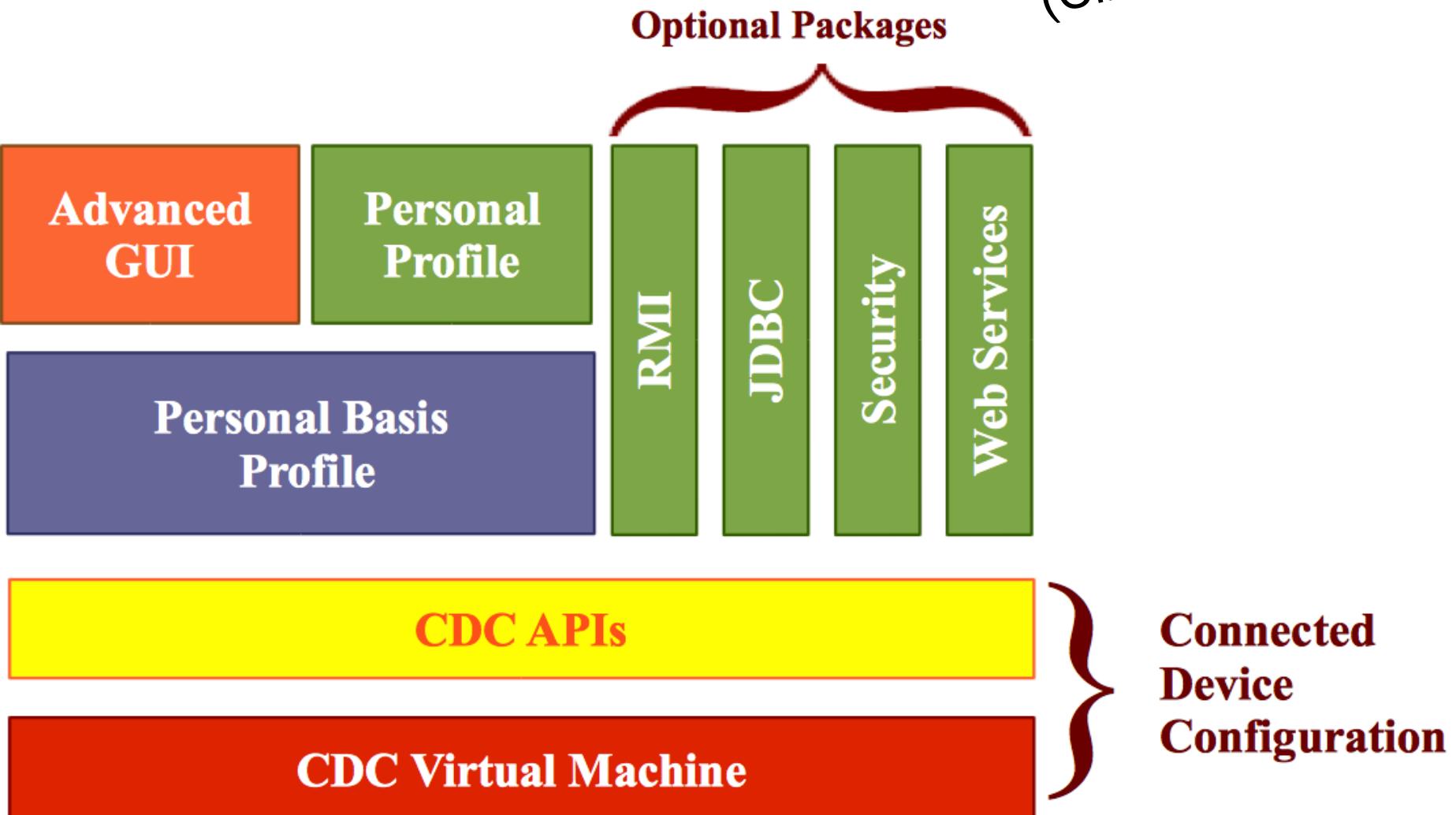


Java Platform



CDC Stack

(Circa 2005)



CDC Then

- Personal Profile 1.0
 - Personal Basis Profile 1.0
- Foundation Profile 1.0
 - Connected Device Configuration 1.0

Target Devices

(Circa 2002)



CLDC



CDC



Desktop

CDC Today

- ~~Personal Profile 1.1~~
- **Personal Basis Profile 1.1**
 - Foundation Profile 1.1
 - Connected Device Configuration 1.1

Media Devices



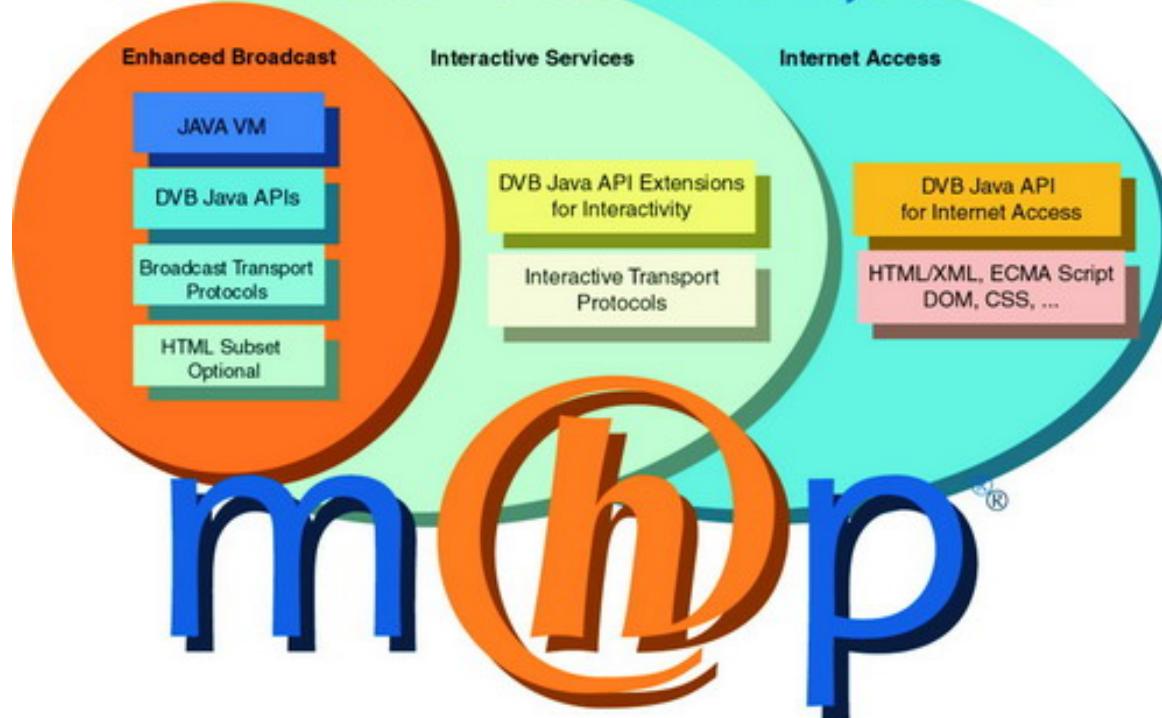


CDC Market Successes...

DVB MHP : 15M

- DVB GEM: Globally Executable MHP

DVB-MHP Profiles 1, 2 & 3



Blu-ray Disc Players : 85M

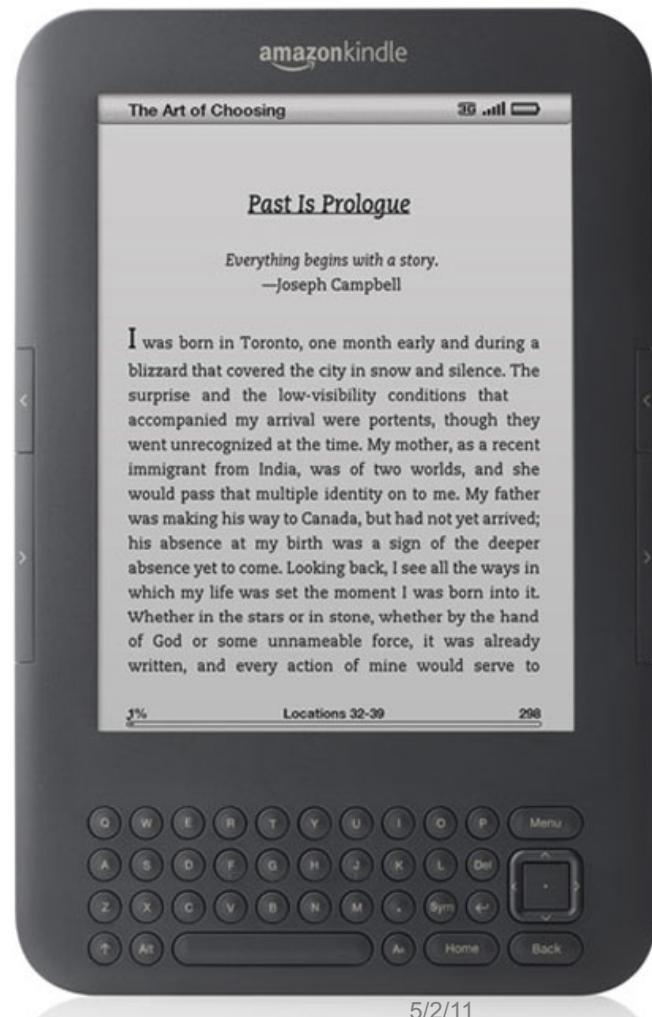
(Including 50M PS3s)



OCAP / <tru2way> : 8M



Amazon Kindle : 6M (est.)



Others

- GEM-IPTV : 2M
- ACAP (Korea) : 1M
- Java-based STBs (China) : 3M
- Brazil SBTVD Ginga-J...
- Plus:
 - advanced printers (PP)
 - more?

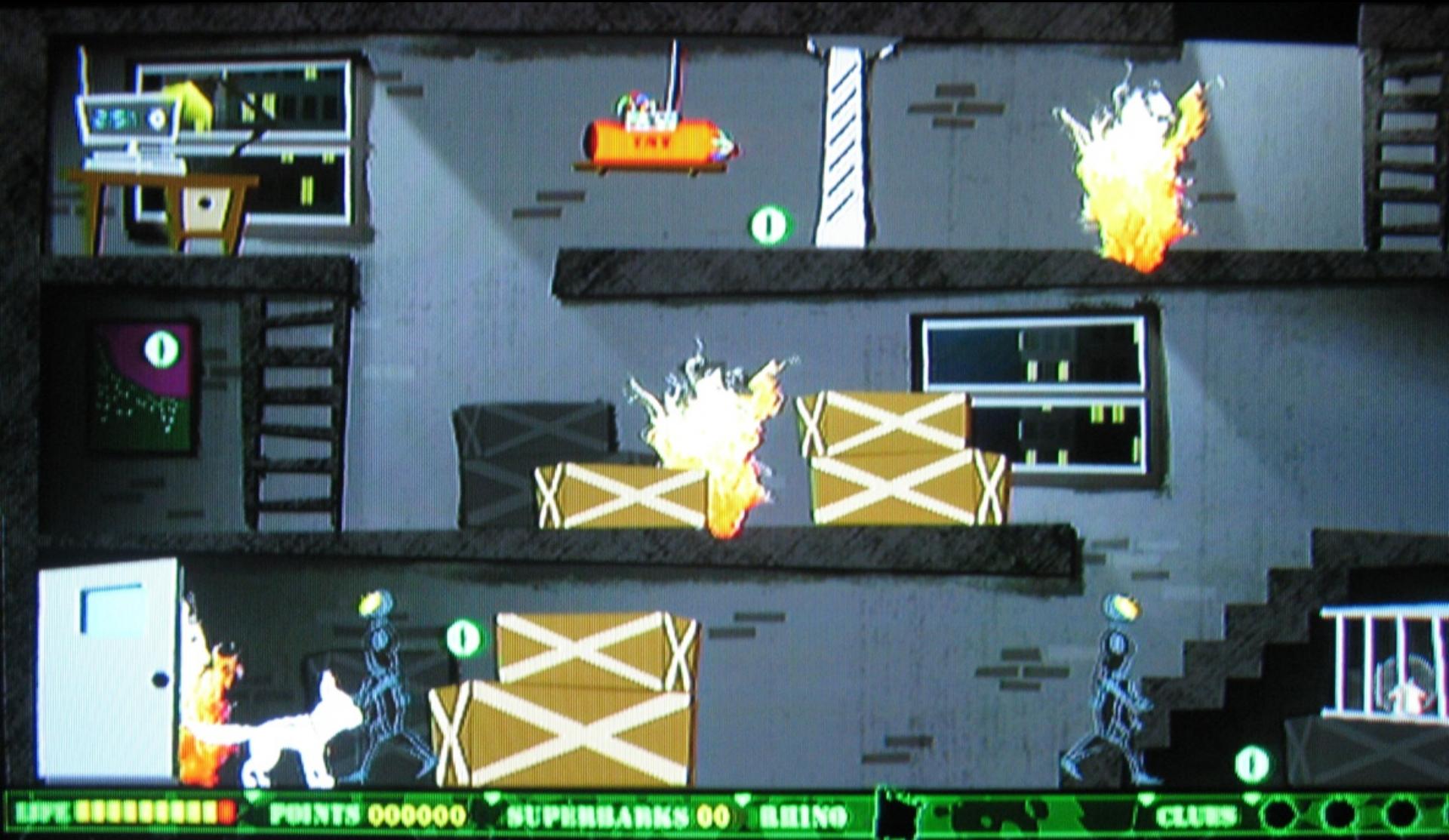
Example: Blu-ray

- Based on DVB GEM
 - PBP 1.0 or 1.1 + Java TV
- org.bluray: Disc-media-specific Java extensions
- Java used in 100% of disc menus
- Java frequently used for on-disc games and other enhancements

Blu-ray Discs







OCAP : OpenCable Application Platform

- Based on DVB GEM
 - PBP 1.1 + Java TV
- org.ocap: Cable-specific Java extensions
 - Guide app is primary client
 - Monitor app enforces operator policy
 - Multiple simultaneous secondary apps
 - Extensions for DVR, Home Networking, UPnP, 3DTV
- Adopted by 8 major N.A. cable operators
- 15M – 20M by end of 2012
- Ongoing development (10 years and counting?!)

OCAP: Java Platform Gaps

- PBP stuck on JDK 1.4 language features
 - No generics, covariant return types, typesafe enums...
- CLDC optional packages not readily available for CDC
 - E.g., OpenGL ES
- Lack of advanced UI features / options
 - Java FX???
 - AGUI (JSR 209)?
 - Open GL ES 2.0?

OCAP: Java “Concerns”

- Platform stagnation
 - Conversely, it may be hard to upgrade our PBP reference
- HTML5 integration
 - DLNA “lite” profile
- Developer mindshare
 - Losing interest and expertise to Android
- Oracle / JCP investment?
 - Previously, Sun was the driver for core TV technologies

Questions and comments...

Thank you

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