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May 13, 2004

Ms. Marlene Dortch
Secretary
Federal Communications Commission
445 12th Street S.W.
Washington, D.C. 20554

Re: Ex Parte Presentation of RealNetworks, Inc. in MB Docket No. 04-65, In the Matter of Digital Output Protection Technology and Recording Method Certifications: Helix Device DRM Trusted Recorder and Helix Device DRM Technology

Dear Ms. Dortch:

On Wednesday May 12, 2004, Laura H. Phillips of Drinker Biddle & Reath LLP, representing RealNetworks, Inc. ("RealNetworks") and Todd Alberstone, Associate General Counsel, RealNetworks, Surya Mantha, General Manager Marketing and Strategic Relations, RealNetworks, Matt Ference, Lead Product Manager, DRM Products, RealNetworks, and Adam Cappio, Program Manager, Client Technologies, RealNetworks met with the following FCC staff to review the Broadcast Flag Certification submitted by RealNetworks in the above-captioned proceeding.

Media Bureau
Steven Broeckaert
Rick Chessen
John Gabrysch
Alison Greenwald
Jeffrey Neumann
Susan Mort
Mary Beth Murphy

Office of Strategic Planning & Policy Analysis
Amy Nathan

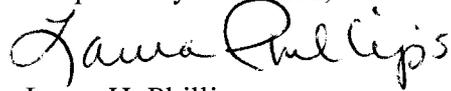
Office of Engineering & Technology
Alan Stillwell

The matters covered in the meeting are reflected in the attached materials, which were distributed at the meeting. Specifically, RealNetworks provided an overview of how its Helix DRM technology works in the marketplace today to protect content from unauthorized distribution. The company also described how Helix DRM can be modified to apply specifically to broadcast Marked Content to control the scope of authorized redistribution. RealNetworks also discussed the issues raised by the range of possible proximity controls proposed by other parties in their certification applications.

Ms. Marlene Dortch
May 13, 2004
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In accordance with Section 1.1206 of the Commission rules, one copy of this letter and attachment is being filed electronically. Please direct any questions concerning this to the undersigned.

Respectfully submitted,



Laura H. Phillips
Counsel for RealNetworks, Inc.

cc (w/att.): Steven Broeckaert
Rick Chessen
John Gabrysch
Alison Greenwald
Amy Nathan
Jeffrey Neumann
Susan Mort
Mary Beth Murphy
Alan Stillwell

RealNetworks: An Overview

Presentation to the FCC: 05/12/04



Agenda

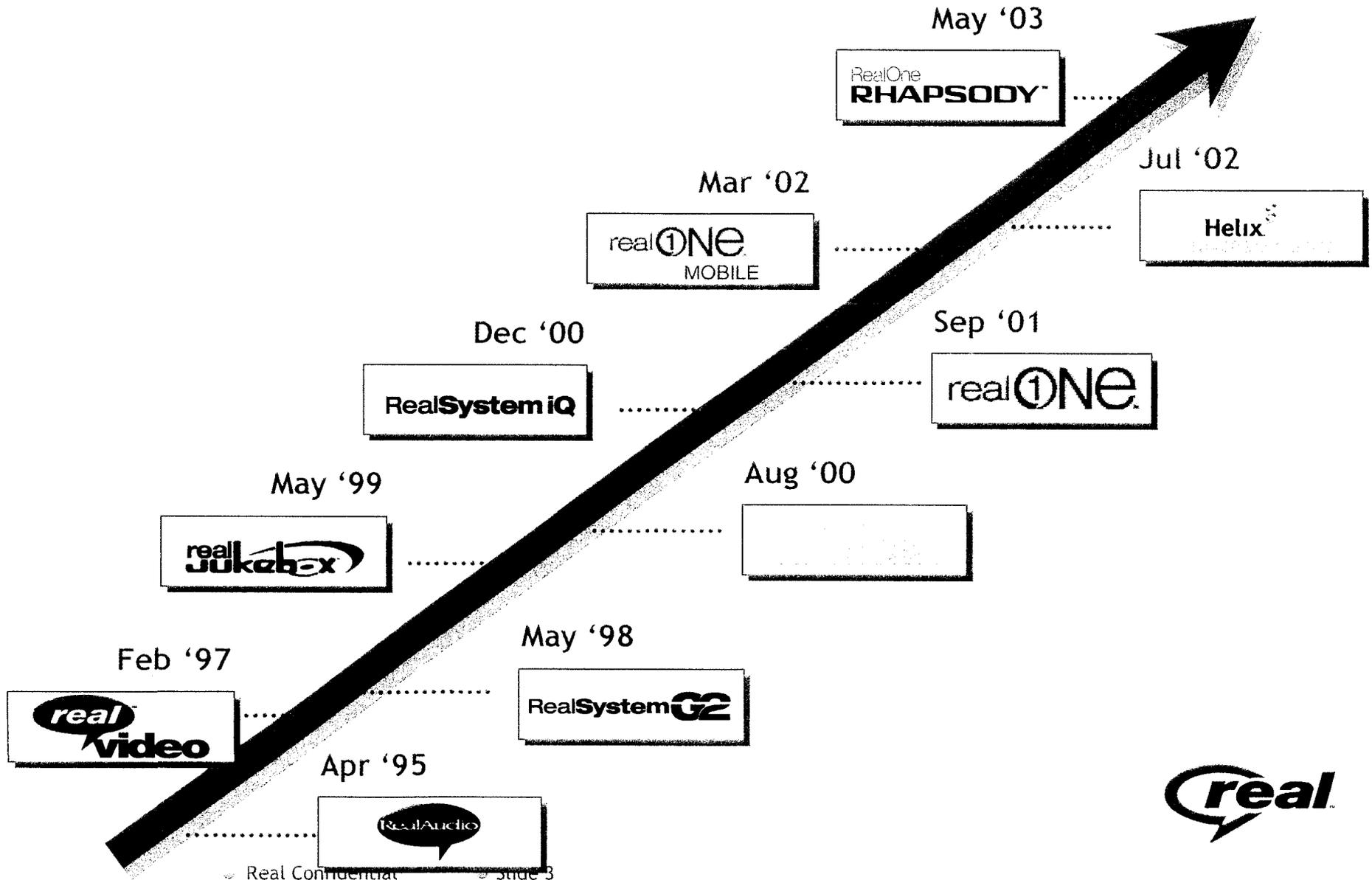
Who are we and why are we here

Helix DRM for Broadcast Flag - Technical
Overview

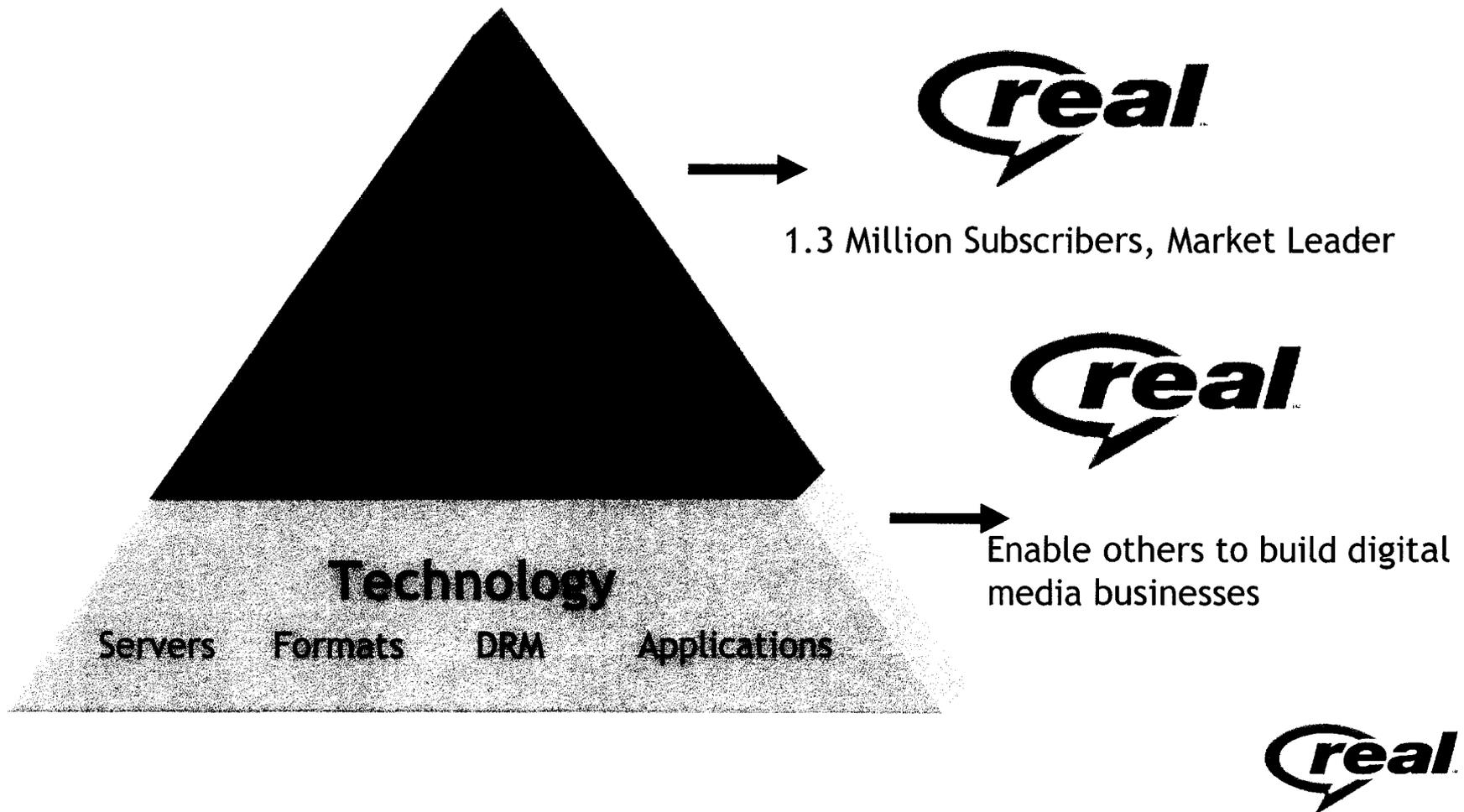
Discussion



10 Years of Innovation



Real's Approach

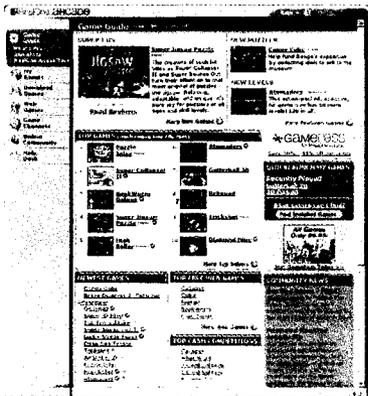


Real PC based Services



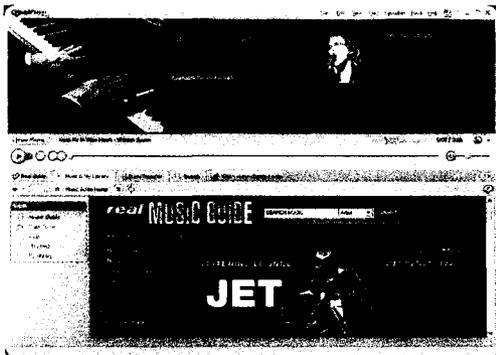
Music: RealRhapsody

Over 600,000 Songs Available
Leading subscription service; 9.95/month
Custom and preprogrammed radio stations



Games: RealArcade

Game management PC client
Purchase or subscription
Over 80M games distributed



Content: RealOne Superpass

Aggregated rich audio/video content offering
News, Sports, Entertainment, Radio
Integrated music store



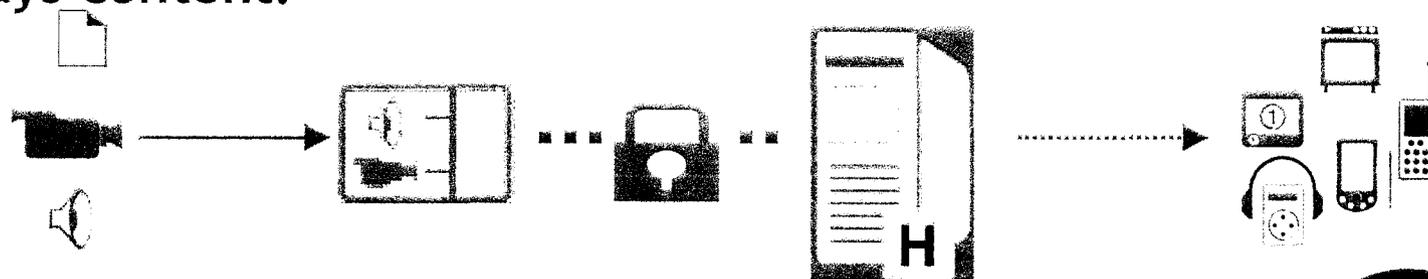
Core Media Delivery Components

Encoder: compresses media into small information packets.

DRM: Protects content and applies business rules.

Server: Delivers content to players.

Player: Software or hardware applications that decode and plays content.



Real's Digital Media Technology

RealPlayer 10: The most friendly RealPlayer ever with a built-in Music Store

RA10/RV10: High Efficiency Codecs

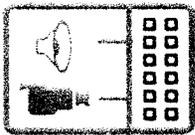
Helix: One Infrastructure, Any Format, Any Device

- The First Open, Comprehensive Platform for Digital Media Creation, Delivery, & Consumption

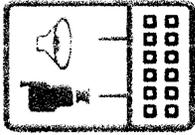
Helix DRM: Universal Digital Rights Management



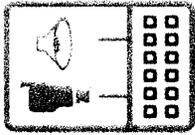
Digital Media 'Convergence' 2001 ..unmanageable



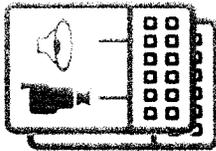
RealAudio/RealVideo



Windows Media

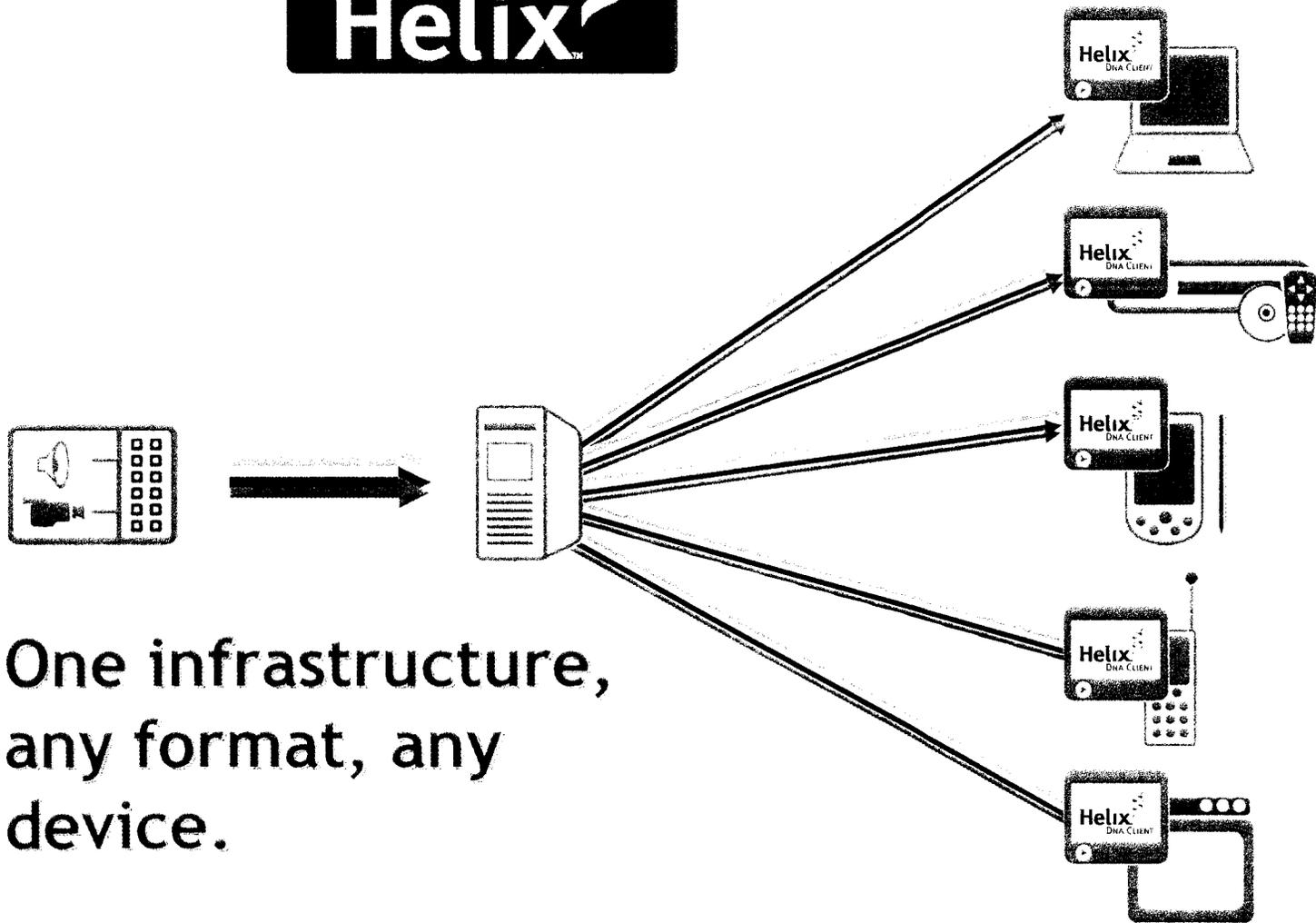


Quicktime



MP3 / MPEG





One infrastructure,
any format, any
device.

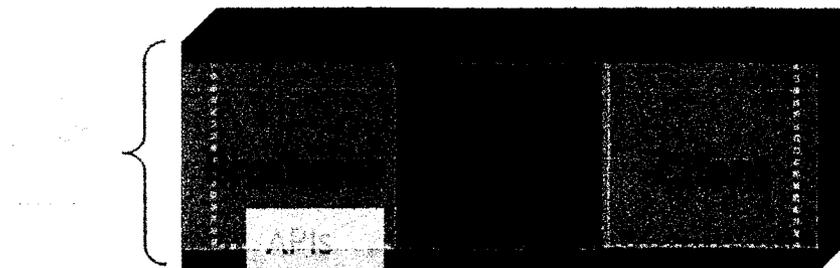


Helix

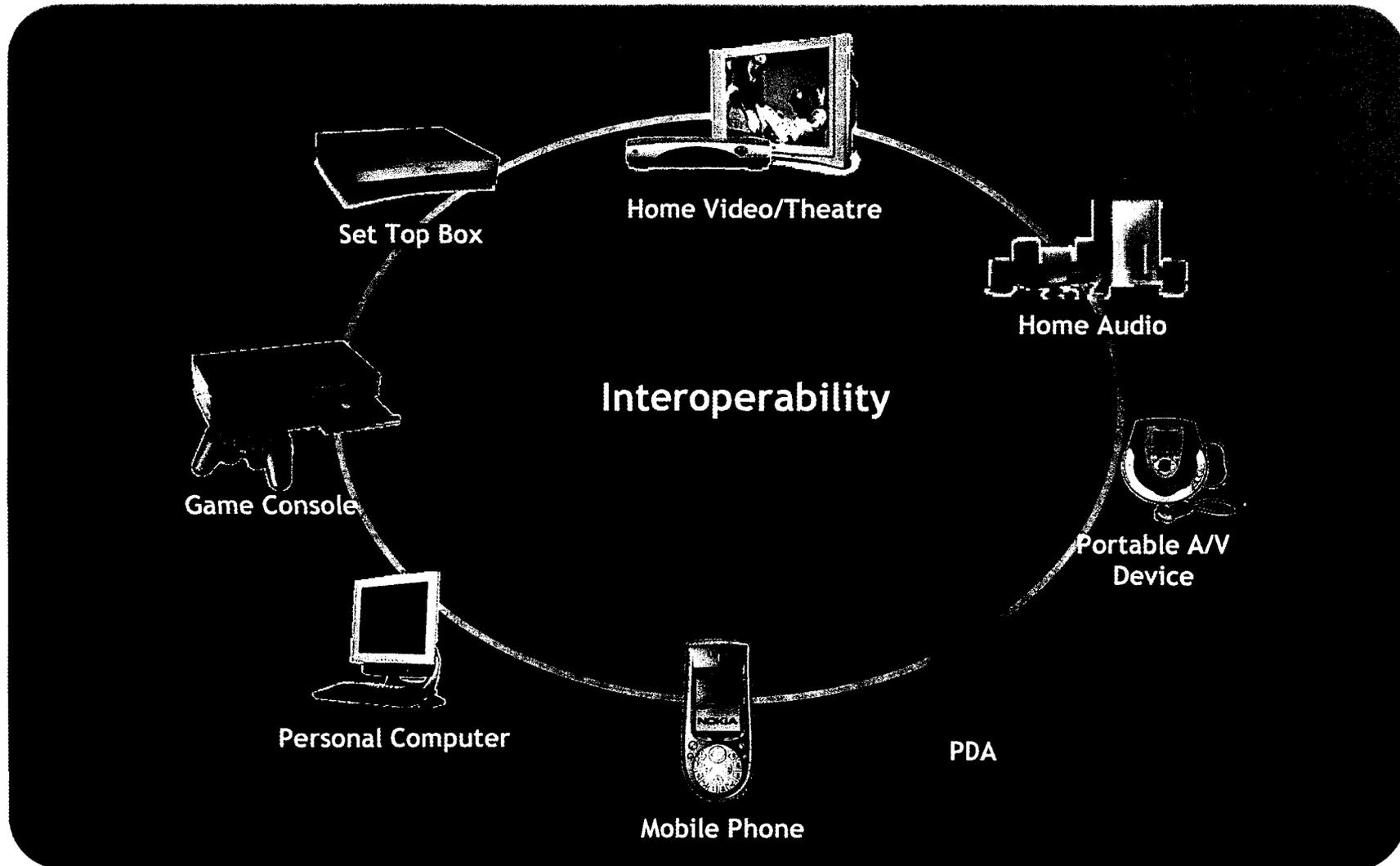
The First Open, Comprehensive Platform for Digital Media
Creation, Delivery, & Consumption

Community of Over 20,000 Developers & Companies
Innovating With & On the Helix Platform

Works With All Media, All Operating Systems, All Processors
& All Devices



Goal: Interoperability Across Devices



Helix DRM Product Overview

Helix DRM

- Helix DRM Packager
- Helix DRM Licenser
- Helix DRM Client
- Helix DRM for devices

Robustness of Security

- Tamper Resistance
- Revocation
- Renewability
- Individualization
- Breach Containment

Flexible

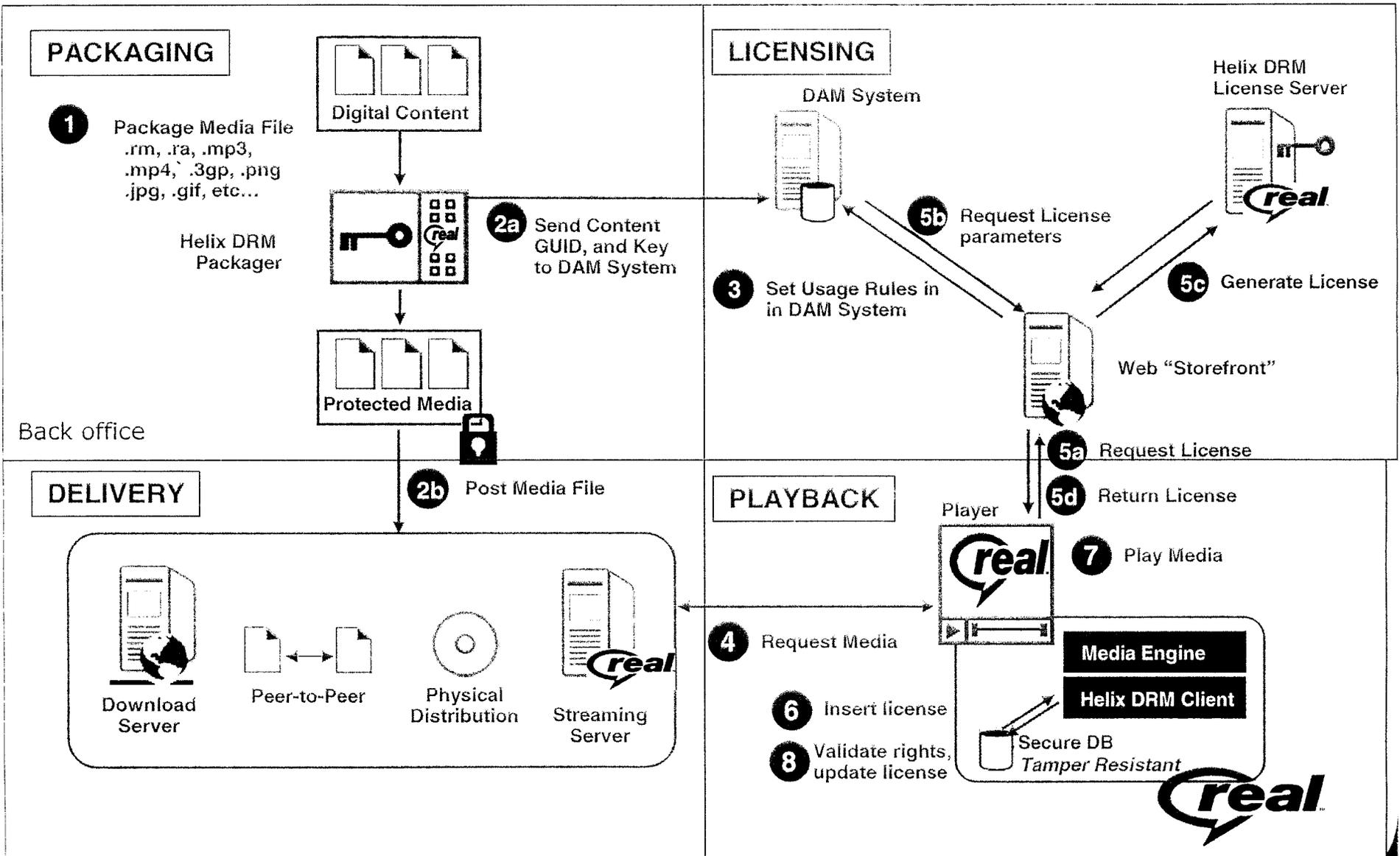
- Multiple Business Rules & Models
- Rules are content independent
- Multiple Formats and Operating Systems

Standards

- OMA 2.0



Helix DRM



Helix DRM vs. CPRM & DTCP

Robustness Requirements	CPRM	DTCP	Helix DRM
No backdoors	Required	Required	Required
Protect secrets keys and constants	Required	Required	Required
Formal Robustness checks as part of Quality Assurance	-	Required	Required
Clear, compressed data not on “user accessible” busses	Required	Required	Required
Distributed functions secure	Required	Required	Required
Self checking	Required	Required	Required
Code encryption	Suggested	Suggested	Required
Ring 0 implementation	Suggested	Suggested	Required
Code obfuscation	Suggested	Suggested	Required
Validate signed code throughout operation	-	-	Required
Debugger detection	-	-	Required
Execution blocks	-	-	Required
No keys assembled in memory	-	-	Required
Individualization	-	-	Required

Helix DRM Business Overview

Customers

Telecommunication Companies, TV Networks, CE Manufacturers, Labels, Studios, and Sports Leagues

Services

Music, Movie, and Sports Subscription Services

Movie and Sports Pay Per View Services

Music Download Services

PC & Devices

One of only 2 ubiquitous DRMs on the PC

Extending our reach beyond the PC to various devices

Interoperability

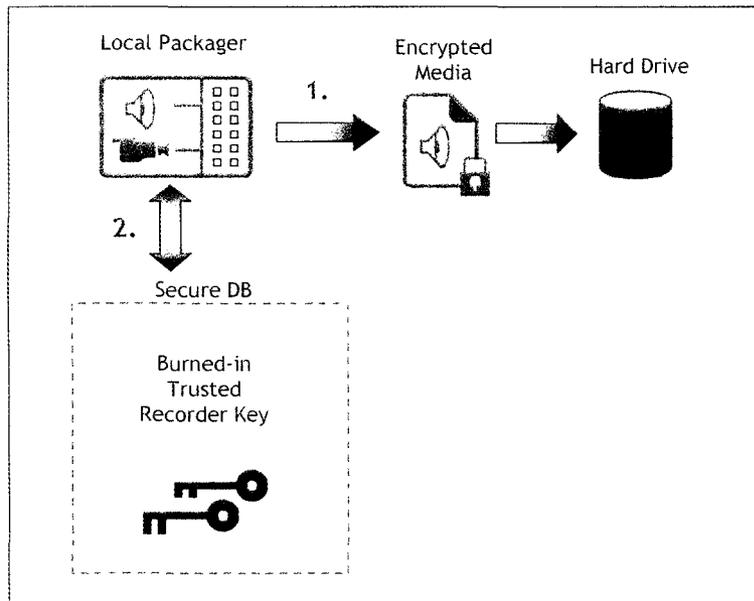
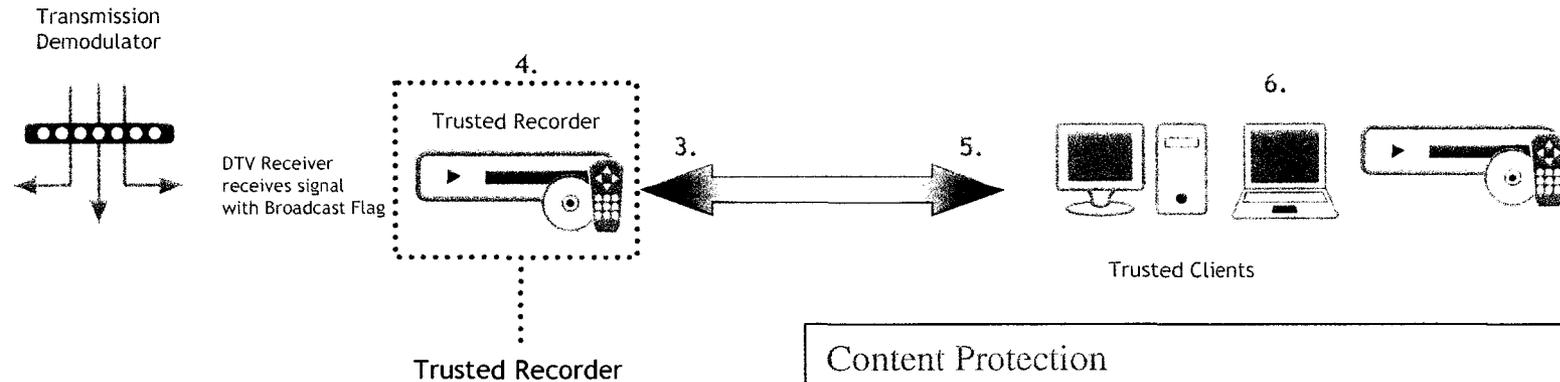
Interoperability between various DRM systems

Standards

Support for Robust DRM Standards (OMA 2.0)



Helix DRM for Broadcast Flag - Technical Overview



Content Protection

- Trusted Recorder encrypts Marked Content received from Demodulator with random Content Key
- Trusted Recorder uses Trusted Recorder Key to encrypt Content Key and inserts encrypted Content Key into media file

Content Distribution

3. Trusted Client requests authorization to consume Marked Content by passing its Certificate containing a unique ID and unique Key
4. Trusted Recorder validates the Certificate
5. Trusted Recorder encrypts its Trusted Recorder Key with the Trusted Client Key and sends it to the Trusted Client
6. Trusted Client can now consume any Marked Content originating from this Trusted Recorder



Helix DRM for Broadcast Flag - Technical Overview

Helix DRM Trusted Recorder

- Responsible for protecting Marked Content received from Demodulator and licensing Trusted Clients
- PC or STB implementation
- Security level of Internet-based DRM solution

Helix DRM Trusted Client

- Allows for consumption of Marked Content in variety of products
- Environment for deployment is very flexible
- Strict robustness requirements, beyond FCC requirements

Protection of Marked Content

- Strong cryptography for content encryption
- Strong cryptography for device licensing

Revocation and Renewability

Interoperability

Distribution of Marked Content

- Trusted Recorder authenticates Trusted Client before sending Recorder Key
- Limiting indiscriminate redistribution

