Business Models Enabled by DRM
BCLT DRM Conference 2007

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Safe Harbor

As a reminder, during the course of today’s presentation and I may make projections and forward-looking statements regarding future events and the future financial performance of the company, including: future use of IP for delivery of digital media and the growth of broadband; our future leadership in subscription services and downloadable content; the future growth in online content markets; the role of media players and multiple music offerings in the success of music services; the future universal support for non-PC devices; the growth of digital media for mobile and home devices and our leadership in that arena; the role of personal computers in home networks; and the effect of new consumer devices on the content subscription markets.

Actual results may differ materially from any projections and forward-looking statements given by management. This presentation should not be relied on for the purposes of investment decisions. Our Form 10-K for the year ended December 31, 2006 and other forms on file with the SEC, identify important risk factors that should be considered when making an investment decision regarding RealNetworks, Inc and that may affect whether our forward-looking statements prove to be correct.
Introduction

• DRM and Music
  • The Goal is the Best Possible Consumer Experience Across Platforms
• The Basics of Software-Based DRM
• The Business Environment
• Enabling Business Models
Music and the Call for Naked MP3s

• The Goal is the Best Possible Consumer Experience Across Platforms

• DRM with appropriate business rules can be a catalyst for new business models.

• Dropping DRM on music purchases would be good for consumers because it gives them what they want: the freedom to enjoy music purchased online, anytime, anywhere, on any device, without complication.

• Dropping DRM on music purchases would be good for the industry by stimulating sales of a la carte music downloads and full albums, and by turning subscription services into the ultimate “try before you buy” services.
Watermarking and DRM

• We have pushed for Transactional Watermarking as one way to bridge the gap between consumers and content owners’ desires to go after those who undermine the value of content through indiscriminate redistribution.

• But Transactional Watermarking may be less important if content owners opt for naked mp3 distribution.

• We’re ultimately agnostic on how to reach the goal: a consumer experience equal or superior to physical media.
Helix DRM -- Overview

• 2000 - initial release to Movielink for video rental service
• 2001 - public release of MusicNet, music subscription service
• 2003 - launch of Real Music Store
• 2004 - Starz MovieTicket
• 2006 - Rhapsody DNA
Helix DRM Packager

• Encrypts Media data in file using 128 bit symmetric key
  • Content key is encrypted with content provider Public key for protection until licensing occurs

• Features
  • Multi-format via File Format plug-ins
  • Supports live and static file packaging
  • Command line application as well as C++ API
  • Runs on Win32, Linux, Solaris, HP-UX, AIX
Delivery

• License is separate from media
  • Delivered media is inert until a license is issued
  • Content key is sufficiently strong to withstand brute force attacks on the file
• File is deliverable via any mechanism
  • Download via HTTP/FTP (CDN)
  • Streaming via RTSP (CDN)
  • Viral distribution via peer to peer networks (Kazza, Gnutella, etc.)
  • Physical media (CD’s in cereal boxes)
Helix DRM License Server

- Helix DRM license server is an HTTP application server
- Generates license that
  - Contains the requested rights
  - Is bound to the client machine via full machine ID
  - Is only valid for a specific, short interval
  - Is encrypted with the public key of the requesting client
- Available on win32, Linux, Solaris
License Rights

- Flexible business rule access rights
  - Time limited
  - Duration limited
  - By Operation (play, burn, transfer)
  - Mix and match

- Subscription Licensing
  - “master” license that manages a set of content licenses

- User Licensing
  - “machine” license that enables content files that are bound to a user
Trusted Client

- Ensures trust of media handling components
- Manages secure database
- Provides for fully off-line rights managed playback
- Available to “trusted” Helix DNA Clients
- Integrates with any browser via JavaScript or VBScript
- Win32, Mac OS X supported today
- Capable of Linux support
DRM Interoperability

• Harmony™ Technology, the world's first DRM translation system to enable consumers to securely transfer purchased music to every popular secure music device
  • Windows Media DRM, Apple FairPlay, Helix DRM
• DTCP over IP
• OMA 2.0
• Coral
• Marlin
• CSS
The Business Environment

• The Goal of True Convergence
• Recent Market Research Data
What Is Communications Convergence?
Long Term Vision: Converged Communications

- **Entertainment Apps**
  - Music Download / streaming direct or via PC
  - Radio
  - Media Management
  - Subscription Video, VOD
  - Integrated PVR
  - Network Gaming
- **Utility Apps**
  - Home Security
  - Firewall / Virus protection

**Internet**
- Audio / Video File Download, Streaming

**Cell Network**
- Audio / Video File Download, Streaming

**Broadcast**
- (Cable, Sat, FOTA)
  - Media Sharing
  - Music playback
  - PVR playback
  - Subscription video, VOD

**Cell Network**
- Audio / Video File Download

**Internet**
- Music Download / streaming direct or via PC
- Radio
- Media Management
- Subscription Video, VOD
- Integrated PVR
- Network Gaming
What Are The Key Applications?

- Video
  - Your Video, when and where you want to watch it
    - TV, PC, or phone
- Music
  - Your Jukebox in the sky, wherever you want to hear it
    - Home, Car, or on the go
- Voice, E-Mail, & Text Messaging
  - Single Number, Integrated Mailbox, advanced services
- Easy Personalization
  - Managing everything through one account
Broadband and DSL Growth

Source: Veronis Suhler Stevenson, September 2006 (2006 & later represent forecasts)
US Consumer Spending on Online Movie and TV Show Downloads, 2006-2011 (millions)

<table>
<thead>
<tr>
<th>Year</th>
<th>Spending (millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>$111</td>
</tr>
<tr>
<td>2007</td>
<td>$472</td>
</tr>
<tr>
<td>2008</td>
<td>$1,200</td>
</tr>
<tr>
<td>2009</td>
<td>$2,000</td>
</tr>
<tr>
<td>2010</td>
<td>$3,100</td>
</tr>
<tr>
<td>2011</td>
<td>$4,100</td>
</tr>
</tbody>
</table>

Source: Adams Media Research, February 2007; Metrics 2.0, February 2007
Willingness to Watch Ads Before Free Video

US Adult Internet Users Who Are Willing to Watch Advertising Before a Free Online Video, 2006 (% of respondents)

- Are not willing: 30%
- Are willing: 14%
  - Are willing if <30 seconds: 13%
  - Are willing if <15 seconds: 12%
- Maybe (ie depends on the video): 31%

Source: Piper Jaffray & Co., January 2007
# The YouTube Factor

**Activities on which US Adult Frequent* YouTube Watchers Spend Less Time due to Visiting YouTube, December 2006 (% of respondents)**

<table>
<thead>
<tr>
<th>Activity</th>
<th>% of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Using other Web sites</td>
<td>36%</td>
</tr>
<tr>
<td>Watching TV</td>
<td>32%</td>
</tr>
<tr>
<td>E-mailing, chatting online, blogging, etc.</td>
<td>20%</td>
</tr>
<tr>
<td>Working or doing homework</td>
<td>19%</td>
</tr>
<tr>
<td>Playing video games</td>
<td>15%</td>
</tr>
<tr>
<td>Spending time in person with friends/family</td>
<td>12%</td>
</tr>
<tr>
<td>Watching videos on DVD</td>
<td>12%</td>
</tr>
<tr>
<td>Reading magazines/newspapers</td>
<td>11%</td>
</tr>
<tr>
<td>Talking to other people on the phone</td>
<td>9%</td>
</tr>
<tr>
<td>Going to the movies</td>
<td>7%</td>
</tr>
<tr>
<td>Exercising</td>
<td>1%</td>
</tr>
<tr>
<td>Other</td>
<td>2%</td>
</tr>
<tr>
<td>None (not spending less time doing anything)</td>
<td>34%</td>
</tr>
</tbody>
</table>

*Note: n=363 ages 18+; *more than once or a few times

Source: Harris Poll, January 2007
Portable Device Usage Driving Digital Music Activities

<table>
<thead>
<tr>
<th>Activity</th>
<th>2006</th>
<th>2005</th>
<th>2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rip music</td>
<td>25%</td>
<td>21%</td>
<td>18%</td>
</tr>
<tr>
<td>Burn music</td>
<td>25%</td>
<td>20%</td>
<td>16%</td>
</tr>
<tr>
<td>Maintain digital music collection</td>
<td>21%</td>
<td>19%</td>
<td>16%</td>
</tr>
<tr>
<td>Create/use playlists</td>
<td>20%</td>
<td>16%</td>
<td>10%</td>
</tr>
<tr>
<td>Use portable MP3 player</td>
<td>19%</td>
<td>10%</td>
<td>6%</td>
</tr>
<tr>
<td>Copy CDs from friends</td>
<td>18%</td>
<td>13%</td>
<td>11%</td>
</tr>
<tr>
<td>Preview music at in-store kiosk</td>
<td>10%</td>
<td>7%</td>
<td>5%</td>
</tr>
<tr>
<td>Share files</td>
<td>8%</td>
<td>5%</td>
<td>5%</td>
</tr>
<tr>
<td>Share files via e-mail</td>
<td>3%</td>
<td>3%</td>
<td>3%</td>
</tr>
<tr>
<td>Share files via instant messaging</td>
<td>2%</td>
<td>2%</td>
<td>4%</td>
</tr>
</tbody>
</table>

Percentage of Online Adults

Question: In which of the following ways do you use music either off-line or online monthly or more frequently? (Select all that apply.)

Source: JupiterResearch/Ipsos-Insight Music Consumer Survey (8/06), n = 2,232 (US only); JupiterResearch/Ipsos-Insight Music Consumer Survey (8/05), n = 2,427 (US only); JupiterResearch/Ipsos-Insight Music Consumer Survey (8/04), n = 2,335 (US only)
Digital Activities Remain Concentrated Among Young Adults

- Rip music: 27% (Online teens), 55% (Online adults ages 18 to 24), 55% (Overall online adults)
- Burn music: 25% (Online teens), 32% (Online adults ages 18 to 24), 55% (Overall online adults)
- Maintain digital music collection: 21% (Online teens), 25% (Online adults ages 18 to 24), 46% (Overall online adults)
- Create/use playlists: 20% (Online teens), 25% (Online adults ages 18 to 24), 45% (Overall online adults)
- Use portable MP3 player: 19% (Online teens), 26% (Online adults ages 18 to 24), 42% (Overall online adults)
- Copy CDs from friends: 11% (Online teens), 26% (Online adults ages 18 to 24), 36% (Overall online adults)
- File share: 10% (Online teens), 15% (Online adults ages 18 to 24), 5% (Overall online adults)
- Listen on cell phone: 6% (Online teens), 6% (Online adults ages 18 to 24), 3% (Overall online adults)

Up 25+ points from 2004

Question: In which of the following ways do you use music either off-line or online monthly or more frequently? (Select all that apply.)

Source: JupiterResearch/Ipsos-Insight Music Consumer Survey (8/06), n = 281 (online users ages 18 to 24, US only), n = 2,232 (online users ages 18 and over, US only); JupiterResearch/Ipsos-Insight Teen Survey (11/05), n = 2,486 (online teens ages 13 to 17, US only)
Larger Digital Song Collections on the Rise

Note: “Don’t know” responses are not shown.

Question: Approximately how many songs are in your music collection on your PC and/or on a portable storage device (in any file format, such as MP3, AAC, WAV, etc.)? (Select one.) Approximately how many songs do you have on your portable MP3 player? (Select one.)

Source: JupiterResearch/Ipsos-Insight Music Consumer Survey (8/06), n = 1,284 (online users with digital music collection, US only), n = 418 (online users who listen to music on portable device, US only)
Existing Music Buyers Spend Across Channels

Question: In what ways have you purchased music, either online or off-line, in the past 12 months? (Select all that apply.)

- CD in physical store: 84% Super fans, 40% Heavy listeners, 78% Heavy spenders, 46% Casual listeners
- Satellite radio: 13% Super fans, 9% Heavy listeners, 3% Heavy spenders, 3% Casual listeners
- CD online: 51% Super fans, 14% Heavy listeners, 46% Heavy spenders, 6% Casual listeners
- CD online as gift: 25% Super fans, 25% Heavy listeners, 25% Heavy spenders, 6% Casual listeners
- Paid download of single: 24% Super fans, 19% Heavy listeners, 12% Heavy spenders, 6% Casual listeners
- Music subscription service: 12% Super fans, 9% Heavy listeners, 3% Heavy spenders, 2% Casual listeners
- No purchase in 12 months: 47% Super fans, 37% Heavy listeners, 47% Heavy spenders, 47% Casual listeners

Source: JupiterResearch/Ipsos-Insight Music Consumer Survey (8/06), n = 403 (super fans, US only), n = 320 (heavy listeners, US only), n = 452 (heavy spenders, US only), n = 1,057 (casual listeners, US only)
Marketers Should Enable Word-of-Mouth-Driven Sampling

Question: In the past 12 months, which of the following activities made you decide to purchase music, either online or off-line? (Select all that apply.)

Source: JupiterResearch/Ipsos-Insight Music Consumer Survey (8/06), n = 403 (super fans who purchased music, US only), n = 202 (heavy listeners who purchased music, US only), n = 452 (heavy spenders who purchased music, US only), n = 560 (casual listeners who purchased music, US only)

Note: Only partial results are shown.
Digital Won’t Replace Lost CD Revenues, But It’s Where the Growth Is

2005
$12.6 Billion Total Market

82%

6%

5%

7%

2011
$11.5 Billion Total Market

59%

12%

21%

8%

Source: JupiterResearch Internet Music Model, 12/06 (US only); JupiterResearch Wireless Model, 12/06 (US only)
Music:  Our approach

Yes, we have a store (and you can buy downloadable tracks).

But, Rhapsody is so much more: the #1 Music Subscription Service

- Integrates PCs, Home Stereos, MP3 Players, Mobile Phones
- Over 2.5 Million Music Subscribers
Rhapsody DNA Direct

- Access to Rhapsody catalog & service directly from device.
- Set of 5 API’s developed by RealNetworks
  - Metadata searching
  - Playback
  - Account management
  - Search
  - Library
Rhapsody DNA: Enabling End-to-End Access to the Music Experience

Rhapsody Music: Wherever, Whenever, However--access to unlimited music

PC Jukebox Software
Rhapsody on the Web
The Celestial Jukebox
Rhapsody Player
Rhapsody Mobile
Set Top Box
TV
Home Entertainment
Player and Platform

Real has established, successful track record & ecosystem for devices

- **Mobile**
  - 100M+ handsets, over 100 manufacturers, & over 130 IC mfr’s licensing Real’s Helix DNA for media playback
  - Active Helix Community dev environment
  - Case study: Cingular Video - highest quality mobile video service using RealVideo & RealAudio

- **Music**
  - Hundreds of devices supporting Rhapsody platform
  - SanDisk Sansa e200R
  - RealPlayer Downloads continue . . .
Enabling Business Models

• The Evolving Distribution Chain:
  • Subscription
  • Ad-Supported
    • Single embedded ad
    • Refreshed Ads
    • Ultramercials
  • Micropayments in a Closed-End P2P or Other System
Enabling Business Models

- Transfers Within Personal Domains
- Subsidiary Transfers on Trusted Devices
- Refreshed Licenses
Thank You!

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