EPUB 3 Digital Rights Management

Jim Dovey
jdovey@kobo.com

"DRM is not a selling point. There's no one who's ever bought a book because it had DRM."

—Cory Doctorow

Digital Rights Management

- Ideological wars

- RMS' "Digital Restrictions Management"

- Hackers & Crackers

- Insert your preferred [trollface.gif] here

Let's avoid all that…

Current DRM Systems

Current DRM Systems

- Adobe Content Server / Digital Editions

Current DRM Systems

- Adobe Content Server / Digital Editions

- Amazon Kindle DRM

Current DRM Systems

- Adobe Content Server / Digital Editions

- Amazon Kindle DRM

- Barnes & Noble Pass-Hash

Current DRM Systems

- Adobe Content Server / Digital Editions

- Amazon Kindle DRM

- Barnes & Noble Pass-Hash

- Apple FairPlay

Current DRM Systems

- Adobe Content Server / Digital Editions

- Amazon Kindle DRM

- Barnes & Noble Pass-Hash

- Apple FairPlay

- Kobo KDRM

Current DRM Systems

- Adobe Content Server / Digital Editions

- ~~Amazon Kindle DRM~~

- ~~Barnes & Noble Pass-Hash~~

- ~~Apple FairPlay~~

- ~~Kobo KDRM~~

Adobe Content Server

- Widespread use today

- EPUB 2 compliant

Adobe Content Server

- Widespread use today

- EPUB 2 compliant

- EPUB 3 maybe possibly perhaps soon-ish

Adobe Content Server

- Widespread use today

- EPUB 2 compliant

- EPUB 3 maybe possibly perhaps soon-ish

  - Don't bank on it

DRM Technology

Enabling end users

Four Components

- User Authentication

- Device (Reading System) Authentication

- Content Authentication

- Action Authorization

Two Components

- User Authentication
- Device (Reading System) Authentication
- Content Authentication
- Action Authorization

Authentication

Authentication

- Guaranteed identity
  - Absolute requirement for any rights management

Authentication

- Guaranteed identity
  - Absolute requirement for any rights management
- Identifying a user — are they a purchaser?
  - The Prime Aim: guaranteed compensation
  - Secondary Aim: identifying Bad Actors
    - Watermarking

Authentication

- Guaranteed identity
  - Absolute requirement for any rights management
- Identifying a user — are they a purchaser?
  - The Prime Aim: guaranteed compensation
  - Secondary Aim: identifying Bad Actors
    - Watermarking
- Identifying a Reading System or Device
  - Only to lock down actions of a particular purchaser

Authorization

- Action-by-action
  - "Read content" is an authorized action
  - "Excerpt", "Share", etc.
  - "Re-download" is an important one
- Lending

Authorization

- Action-by-action
  - "Read content" is an authorized action
  - "Excerpt", "Share", etc.
  - "Re-download" is an important one
- Lending

Libraries

- Loan out content
  - Specific time-frames
  - Differing authentication requirements?
    - Library-approved devices
    - Library account authentication

Libraries

- Loan out content

  - Specific time-frames

  - Differing authentication requirements?

    - Library-approved devices

    - Library account authentication

Should *never* need a different SKU/ISBN/ePub

Denying Authorization

- Encrypted content

- Decrypt only upon successful authentication and/or authorization

Identities

- Four things to identify:

Identities

- Four things to identify:

  - The consumer, i.e. the person reading now

Identities

- Four things to identify:

  - The consumer, i.e. the person reading now

  - The purchaser

Identities

- Four things to identify:
  - The consumer, i.e. the person reading now
  - The purchaser
  - The reading system

Identities

- Four things to identify:

  - The consumer, i.e. the person reading now

  - The purchaser

  - The reading system

  - The content

Watermarking

- Four things to identify:
  - The consumer, i.e. the person reading now
  - The purchaser
  - The reading system
  - The content

Lightweight Content Protection

- Four things to identify:

    - The consumer, i.e. the person reading now

    - The purchaser

    - The reading system

    - The content

Strong DRM

- Four things to identify:

  - The consumer, i.e. the person reading now

  - The purchaser

  - The reading system

  - The content

EPUB 3 Support

- EPUB 3 defines some things
  - Encryption metadata format
  - Digital Signature metadata format
  - Some things used by Adobe: rights.xml

Readium

- Started as a web-based reference implementation of EPUB 3 via Chrome browser

- Now an open source foundation with many projects

Readium SDK

- A commercially-viable native EPUB 3 implementation

  - Similar in scope to Adobe RMSDK

  - Implemented by who's-who of EPUB industry:

    - IDPF, Kobo, Bluefire, DAISY, Sony…

Readium LCP

- A specification for Lightweight Content Protection

- Designed for both commercial sales and lending

  - Lending supported for libraries or individuals, configurable per-book

Readium LCP

- Draft proposal available online

  - https://dl.dropbox.com/u/896638/Kobo-EPUB-LCP.pdf

- Details will change, aims/capabilities will not

- Should begin work in earnest mid-2013

  - Completion Q4 2013

Readium LCP

- Input from libraries much appreciated

  - The primary features of Readium LCP are geared towards your use cases

  - We need to know if we've missed any!

- Please contact the Readium Foundation: http://readium.org/

EPUB 3 Digital Rights Management

Jim Dovey
jdovey@kobo.com