

# Digital Rights Management (DRM)

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## This presentation

- What is DRM?
- Why DRM?
- Microsoft Windows Media DRM 10
- What's wrong with DRM?
- Trusted Computing

## What is DRM?

- Technologies and systems that prevent users from doing things with content that the content provider does not wish them to do.
- Content providers:
  - Record companies
  - Movie studios
  - Software developers
  - Email authors

## What is DRM?

- Examples of DRM:
  - iTunes AAC files use FairPlay
  - CSS on DVDs
  - FlexPlay on DVDs
  - Digital watermarking
  - Software product activation
  - MS Windows Media DRM 10
  - A DRM compliant OS running on DRM compliant hardware (Trusted Computing)

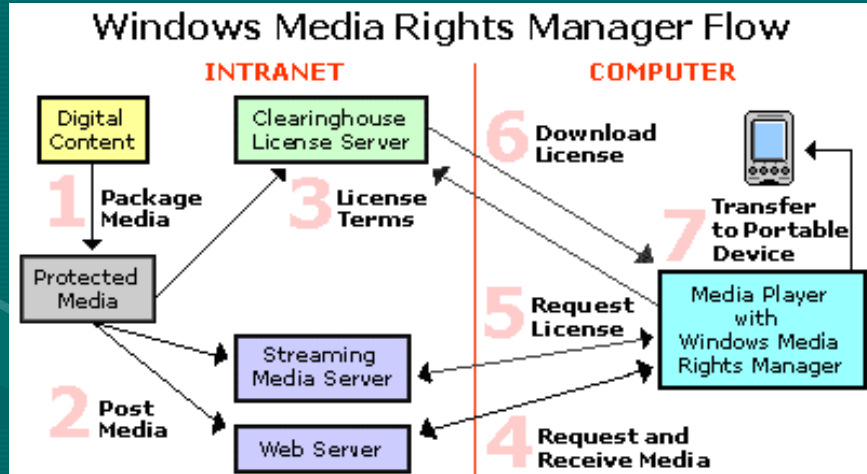
## Why DRM?

- Protecting the rights of the content providers
- Identifying the creator and the copyright holder
- Analog copies vs digital copies
- Privacy and security

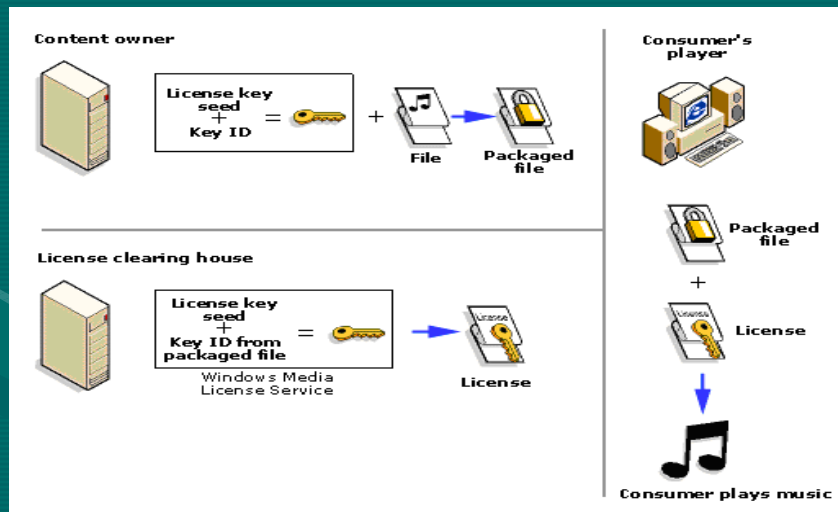
## Microsoft Windows Media DRM 10

- Windows Media Audio (WMA)
- Windows Media Video (WMV)
- Microsoft Windows Media Rights Manager
- Windows Media Rights Manager compatible player
- Encrypted files
- License with “key” to “unlock” files

# Microsoft Windows Media Rights Manager – Content distribution



# Microsoft Windows Media Rights Manager - Licenses



## Microsoft Windows Media Rights Manager - Licenses

- Licenses can have different rights
- Start times and dates, duration, and counted operations, allowed to transfer to portable device?
- Licenses are not transferable
- Ensures that the files can only be played on computers that has been granted the license key for that file

## What's wrong with DRM?

- DRM systems don't always work, or they are often too easy to circumvent
- They hinder competition and interoperability
- Added layers of software increases the probability for bugs and problems
- DRM can be used to carve out new rights
- No DRM systems today respect the transition to the public domain
- Some DRM systems disallow the resale of copyrighted material

## Trusted Computing

- The next step in DRM
- OS and hardware enforced DRM
- Trusted Computing Group (TCG)
- AMD, Hewlett-Packard, IBM, Intel, Microsoft, Sony, and Sun Microsystems
- Microsoft's forthcoming Longhorn - Next Generation Secure Computing Base (NGSCB)
- "Traacherous Computing" ?

## We have taken a look at

- What is DRM?
- Why DRM?
- Microsoft Windows Media DRM 10
- What's wrong with DRM?
- Trusted Computing

## Sources / Further reading

- [http://en.wikipedia.org/wiki/Digital\\_rights\\_management](http://en.wikipedia.org/wiki/Digital_rights_management)
- <http://www.microsoft.com/windows/windowsmedia/drm/>
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