

DReaM-D15N: Disintermediation of back-end services from content protection technologies

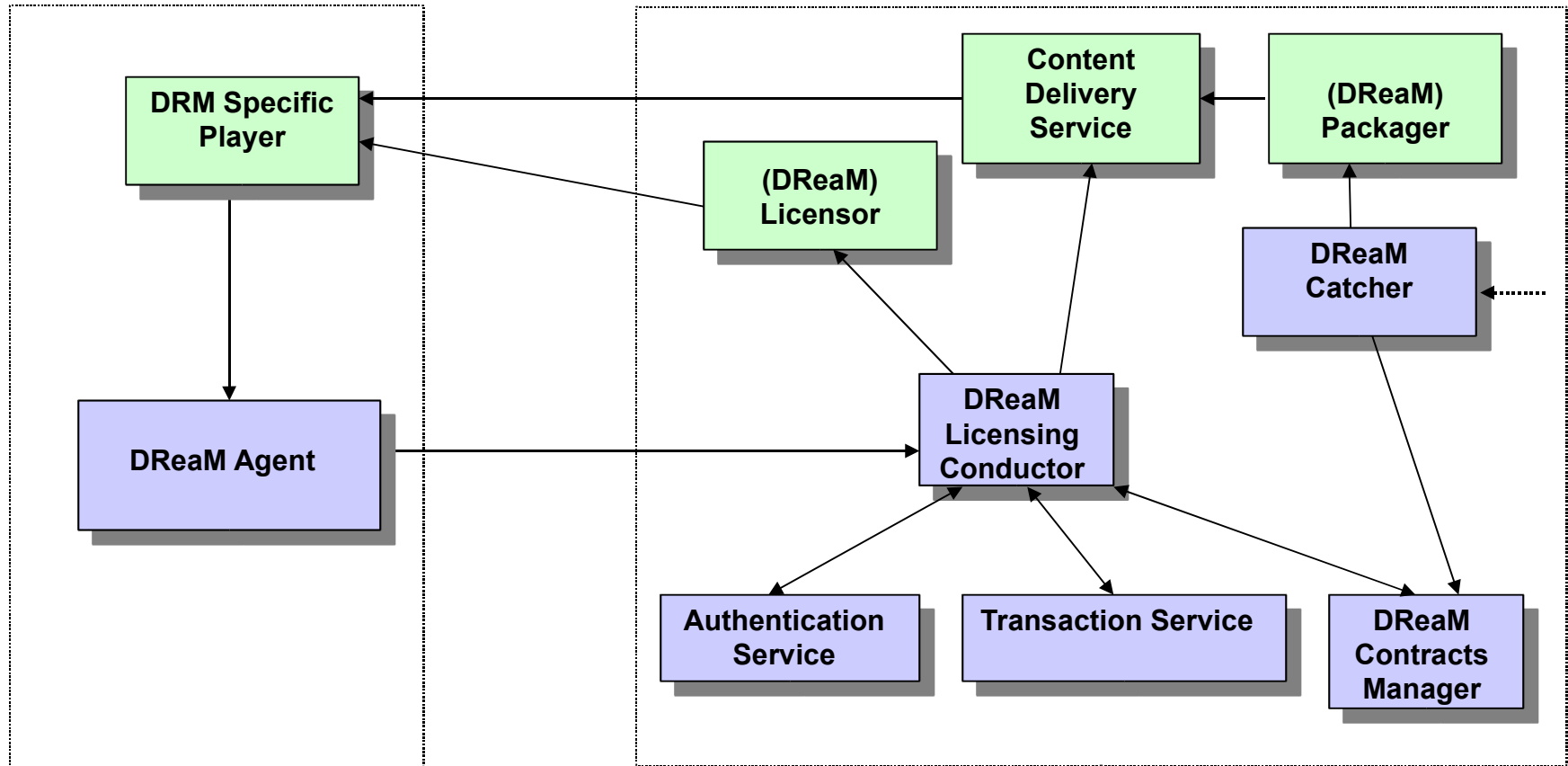


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OMC's Project DReaM

- Supports Open Media Commons (OMC) vision of open source and royalty-free intellectual property
- Leverage Liberty Alliance to promote Identity & Role based licensing models, rather than device based licensing only
- Addresses both Conditional Access (CA) and Digital Rights Management (DRM) system models
- Addresses customer immediate multi-system interoperability requirements
- Independent of any specific content type
- A horizontal solution platform capable of supporting: Business, Content and Life vertical markets
- Exploration of RMS policy options beyond encryption (watermarking & tracking)

DReaM Components



DReaM Client Side

DReaM Service Side

Content protection components

Disintermediation components

Major Components of DReaM

- Content Catcher/Ingest (DReaM Catcher)
 - Import digital content
 - Import business rules related to content
- Content Packaging (DReaM Packager)
 - Content encrypted (AES, 3DES)
 - Key(s) for encrypted data are produced and then posted to Secure License Server (DReaM Licensor) Database
 - Protected content is posted to content delivery server
- Content Rights Server/Repository (DReaM Contracts Manager)
 - Repository of business rules
 - Business rules are interpreted here

Major Components of DReaM

Continued:

- Content Delivery Server
 - Support for distribution of protected data
 - Optionally, protected keys are delivered “in-band” with protected content
 - Broadcast, Multicast or Unicast
 - Streaming or download
 - Formats:
 - Movies, Music, Games, Images
 - Documents, Data, Services

Major Components of DReaM

Continued:

- License Service

- a) Primary point-of-contact with clients (DReaM Licensing Conductor)
- b) Communicates with DReaM Contracts Manager to generate "offer" of price and terms
- c) Authentication (user, device, SIM, Java Card, Liberty single sign-on, etc) (Authentication Service)
- d) Payment & Fulfillment (e-Commerce) (BSS, OSS-J)
- e) Generates license (DReaM Licensor)
- f) Deliver license (DReaM Licensor)

Major Components of DReaM

Continued:

- Client side (DReaM Agent)
 - Ability to negotiate for licenses
 - Supports CA and DRM models
 - Secure key repository
- DRM specific player
 - Set-top-box, Mobile phone, CE devices, PC
 - Secure Device
 - > ID, Clock, Storage, Execution

Disintermediation (D15N) - Concepts

- Enables distribution of content across multiple access networks
- Doesn't replace existing DRM/CAS systems, rather it abstracts key functions & fully co-exists
- Proxy mechanism needed on devices to redirect to disintermediation server (DReaM Conductor)
- Content Usage Rights (CURs) reside on the DReaM Contracts Manager and are superset of the DRM specific CURs which are delivered in a license
- Authentication step requires network connection – usage rights can be exploited when unconnected

D15N - Benefits

- Service Providers
 - Ability to retain rights to user/usage data
 - Choose their own authentication solution independent of DRM technology
 - Support existing/legacy devices with own DRM systems which have licensable SDK interfaces
- Content Owners
 - Greatest opportunity to reach heterogeneous world of devices owned by users

How does D15N work?

- Content packaged with D15N redirect information - i.e. DReaM Agent URL
- DReaM Agent installed on user device
- User requests rights for content which gets redirected to D15N server (i.e. DReaM Licensing Conductor) through DReaM Agent

How does D15N work?

- DReaM Licensing Conductor processes requests:
 - a) Authenticates user
 - b) Evaluates rights
 - c) Performs transaction service
- Signals license server to deliver license to user device
 - a) License server then delivers license to user device
- User device receives license (rights and key), and can now consume content

D15N in existing protection solutions

- D15N can be employed with existing protection solutions if they allow:
 - License server redirection
 - Authentication independent of DRM vendor (eg. Liberty)

DReaM-D15N:

Disintermediation of back-end
services from content
protection technologies

PROJECT
DREAM

The logo for Project DREAM. The word "PROJECT" is in a blue, sans-serif font above the word "DREAM". The word "DREAM" is in a large, blue, 3D-style font. The letter "E" is replaced by a globe with a grid pattern, and the letters "R" and "M" are also in a 3D style.



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