

Sun's Approach to Digital Rights Management: Project DReaM

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What We Believe:

- Innovation flourishes through openness: reference architectures, open standards, open source.
- Compensation for creators.
- All creators are users, many users are creators.
- Users' privacy will be key.
- Code --- laws and technology* --- should encourage innovation.

Greg Papadopoulos's blog: 19 July 2005
www.openmediacommons.org/about.html

What this Means:

- Interoperable systems
- Open source
- Network centric
- Identity-based systems
- DRM where the user matters

Open Media Commons



Open Media Commons

Trust is the currency of the Participation Age.



You are invited to participate in the Open Media Commons and develop royalty-free open solutions for digital content. We're seeking your help to drive cross-industry growth and prosperity as well as promote both intellectual property protection and user privacy.

Features



OMC Community Workshop

March 15-16, 2006
Santa Clara, California

This Open Media Commons Workshop is the first opportunity for the global community of developers to come together and hear about Sun's initial contributions as well as discuss how the various DRM and codec open source projects should progress going forward. We're interested in hearing your views and accepting your contributions to the efforts as well as providing you the opportunity to analyze Sun's contributions.

» [Learn More](#)

» Contact Us

Get Involved:

- » [Participate](#)
- » [Forums](#)

Resource Links:

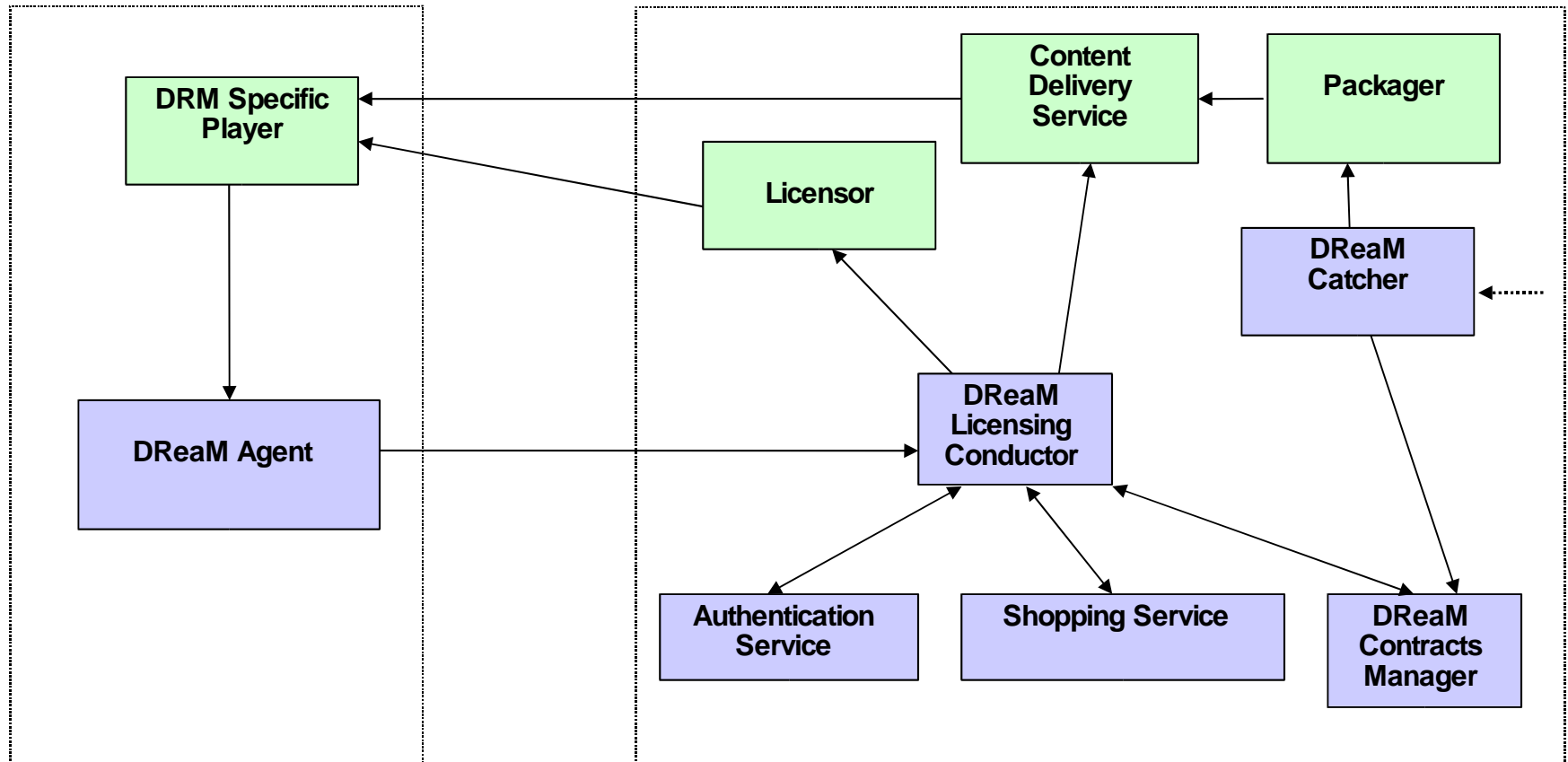
- » [About OMC](#)
- » [News](#)
- » [Documentation](#)
- » [FAQ's](#)
- » [Key Resources](#)
- » [Projects](#)

Related Links:

- » [Creative Commons](#)
- » [Java.net](#)
- » [Liberty Alliance](#)
- » [ODRL Initiative](#)
- » [OpenSolaris.org](#)
- » [Sun Microsystems](#)
- » [SunSource.net](#)

DReaM Architecture

Tom Jacobs
Gerard Fernando
Viswanathan
Swaminathan



DReaM Client Side

DReaM Service Side

DRM Specific Technology

DReaM
Technology

MMI Protocol:

- Very simple mechanism to
 - > Request and obtain rights
 - > Release unused rights
 - > Aggregation of requests and release
- Rights are stored on the network and accessible to any networked client.
- Rights are identity based.
- Mobility – rights accessible for any client
- Supports tethered devices.
- Supports occasionally disconnected mode.

Major Technologies of DReaM

- **DReaM-D15N:** Architecture for decoupling back-end infrastructure from content protection technology
- **DReaM-CAS:** Content protection technology for securing content for IPTV and similar applications
- **DReaM-MMI:** Network centric protocol for rights negotiation and management

*Gerard Fernando
Vishy Swaminathan*

Current Status

- DReaM-CAS & DReaM-MMI Specs Available
- All DReaM Source Code on java.net.
 - > Includes reference Web portal
 - > Identity based Rights
 - > Rights Transfer
 - > Fair Use Concept Demo
- Workshop Held in March 2006
- Patent Analysis - Completed for DReaM-CAS
- Over 350 companies now have specs
- Contributed DReaM-CAS to ATIS-IIF
- Java Standards Work – ongoing: JSR 300 (Java support for DRM)
<http://www.jcp.org/en/jsr/detail?id=300>

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Users Matter: Creative Commons

Attribution 

Noncommercial 

No Derivative Works 

Share Alike 

www.creativecommons.org

Implementing Creative Commons Licenses in DReaM

- What does it mean to implement a CC license?
- Which licenses can you implement?
- Issues we needed to consider:

anonymity
specification of rights

Implementing Creative Commons licenses in DReaM

- Enforcement only makes sense for certain licenses: Attribution and No Derivative Use.
- For all other licenses, only notification.
- How do you handle enforcement?
Remember CC licenses are about “sharing.” Only enforce when on a trusted device; do not require enforcement on an untrusted device --- sharing trumps enforcement.
- CC licenses can only be implemented in an environment that supports fair use.
- There is no endorsement by Creative Commons of this work.

spec work by Seth Proctor
Susan Landau

Challenges

- Technical: interoperability
- Legal: royalty-free, open source (e.g., GPL and CDDL present interesting challenges)
- Policy: privacy, differing legal regimes around the world
- How do you build fair use in? How do you protect users' privacy **and** appropriately compensate?

Convenience = Consumption

Fair Use Complexities

- First Sale --- DReaM/MMI can handle this...
- Snippets
- Personal space
- Watermarking: where is it done and who pays?



my account 0 item check out

MEMBERS

LOGIN

Welcome Anakin

Sign Out



Home

Music

Videos

Games

Ringtones

Uploads

Features

New Release

Staff Picks

Browse Genres

Rock/Pop

Alternative/Punk

Rap/HipHop

User ID:

My Info

Anakin

Phone:

+6507861111

SIM #:

34234324324234

Full Name:

Anakin



Email:

Anakin@Sun.com

My Content

Category	Title	# Simple Plays	# Unrestricted Plays	# Records	Play Now	Transfer Rights	Assert Fair-use
movie	Batman	29	0	0	Play	Transfer	Assert
movie	Birds	840	0	0	Play	Transfer	Assert
movie	Final Destination	9	0	0	Play	Transfer	Assert
movie	Java Car Demo	19	0	0	Play	Transfer	Assert



my account  0 item  check out

MEMBERS

LOGIN

Welcome Anakin

Sign Out



Home

Music

Videos

Games

Ringtones

Uploads

Features

New Release

Staff Picks

Browse Genres

Rock/Pop

Alternative/Punk

Rap/HipHop

Registration form for fair usage of 'Batman'

Purpose of Fairuse Rights

- ☐ Review Purposes
☐ Educational Use
☐ Parody
☐ Other (Optional)

Country of Usage

Assert

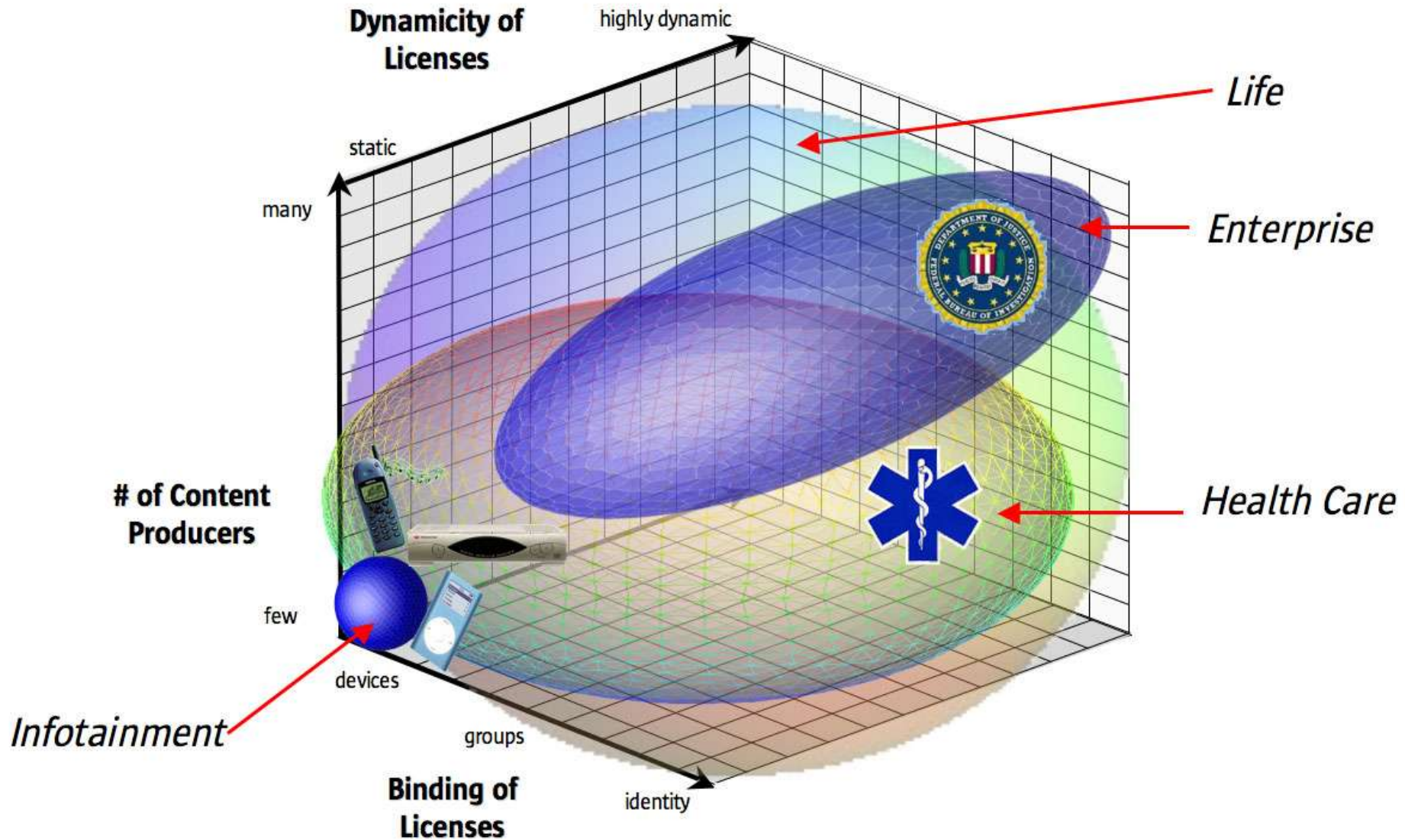
Next Steps for DReaM -- Specification & IPR Analysis

- DReaM-MMI V1.0, DReaM-CAS V1.1 specifications
- Security analyses of DreaM technologies and architecture
- Robustness rules
- Completion by CY2007

Next Steps - Community

- Identify governance bodies for DReaM specifications:
 - > *Liberty Alliance, DMP (Digital Media project) ??*
- Solicit support from ecosystem of companies
- Activities
 - > Evangelization (get “buy-in” from content community)
 - > Compliance & Certification

Rights Management Domains



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