



CASE STUDY

DRM-protected Music Interoperability and elnnovation

Urs Gasser and John Palfrey

Berkman Publication Series, November 2007 http://cyber.law.harvard.edu/interop

The Berkman Center for Internet & Society, Harvard University Research Center for Information Law, University of St. Gallen Sponsored by Microsoft®

This work is licensed under the Creative Commons

Attribution-Noncommercial-Share Alike 3.0 United States License.

To view a copy of this license, visit http://creativecommons.org/licenses/by-nc-sa/3.0/us/



ABSTRACT

This report – representing one of three case studies that are part of a transatlantic research project aimed at exploring the potential relation between ICT Interoperability and eInnovation - examines issues surrounding DRM interoperability within the context of music content. Recognizing that interoperability will likely be defined differently by different stakeholders, we begin by establishing a rough, holistic working definition of interoperability and then assess the implementation of DRM in the music content market and associated problems with regard to interoperability. We then go on to explore the technological, market, and legal environments in their relation to and impact upon the achievement of interoperable DRM systems. In part 2, we analyze potential benefits and drawbacks of an interoperable DRM environment for the music content market. We then evaluate both private and public-initiated approaches towards the accomplishment of interoperability using a series of qualitative benchmarks. Lastly, we conclude by summing up the merits and demerits of the various approaches. Our findings lead us to surmise that normative considerations weigh in favor of greater interoperability in general. The challenge of determining the optimal level of interoperability and the best approach for attaining it, however, points toward consideration of a number of complex factors. We conclude that the best way to determine the optimal level of interoperability and means of accomplishing it is to rely upon economic-based assessments on a case-by-case basis.



TABLE OF CONTENTS

About this Report	V
Introduction	1
1 State of Play: DRM Music Interoperability	4
1.1 What is DRM Interoperability?	4
1.2 DRM Interoperability and Music Distribution	7
1.2.1 Offline distribution	7
1.2.2 Online distribution	8
1.3 Forces at play: Some drivers and inhibitors	12
1.3.1 Complex technology	12
1.3.2 Dynamic market incentives	16
1.3.3 Conflicting influences of law	19
2 Assessing DRM Music Interoperability	24
2.1 Possible benefits	24
2.1.1 Competition and innovation	24
2.1.2 Autonomy, choice, and flexibility	27
2.1.3 Access, diversity, and openness	28
2.2 Possible drawbacks	29
2.2.1 Security	30
2.2.2 Privacy	31
2.2.3 Accessibility	32
2.3 Conclusion	33



3 Approaches towards DRM Music Interoperability	36
3.1 Basic Framework	36
3.1.1 Overview	36
3.1.2 Mapping approaches	37
3.1.3 Benchmarks	38
3.2 Evaluating selected approaches towards DRM music	
interoperability	39
3.2.1 Selected approaches by private actors	39
3.2.1.1 Reverse engineering	39
3.2.1.2 IP Licensing	41
3.2.1.3 Open Standards	44
3.2.2 Selected regulation-based approaches	48
3.2.2.1 Mandating Standards	48
3.2.2.2 Disclosure of interoperability information	51
3.2.2.3 Transparency rules, labeling requirements	53
3.2.3 Conclusion	55
4 Summary	58



DOCKET

Explore Litigation Insights



Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time** alerts and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.

