#### UNITED STATES PATENT AND TRADEMARK OFFICE

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#### BEFORE THE PATENT TRIAL AND APPEAL BOARD

Apple Inc. Petitioner

V.

ContentGuard Holdings, Inc.
Patent Owner

Case IPR2015-00445
Patent U.S. 7,523,072
Filed December 16, 2005
Issued April 21, 2009

Title: System for Controlling The Distribution And Use Of Digital Works

Attorney Docket No. 20318-134360 Customer No: 22242

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Filed electronically via the Patent Review Processing System (PRPS) on April 15, 2015

### PRELIMINARY RESPONSE OF PATENT OWNER

Mail Stop PATENT BOARD
Patent Trial and Appeal Board
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, Virginia 22313-1450

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### I. INTRODUCTION

Patent Owner ContentGuard Holdings, Inc. ("CG") respectfully submits this Preliminary Response in accordance with 35 U.S.C. § 313 and 37 C.F.R. § 42.107, responding to the Petition for *inter partes* review (the "Petition") filed by Apple Inc. ("Apple") regarding claims of U.S. Patent No. 7,523,072 ("the '072 patent")¹. CG requests that the Board not institute *inter partes* review for several reasons.

The Board has discretion to "deny some or all grounds for unpatentability for some or all of the challenged claims." 37 C.F.R. § 42.108(b); *see* 35 U.S.C. § 314(a). Apple bears the burden of demonstrating that there is a reasonable likelihood that at least one of the claims challenged in the Petition is unpatentable.

37 C.F.R. § 42.108(c). Although the patent owner is not required to file a

The '072 patent is a member of a family of patents issued to Stefik et al., including 6,963,859; 7,269,576; 7,225,160; 8,370,956; and 8,393,007 ("The Stefik patents"). Each of the Stefik patents has a common parent and share virtually the same disclosure. Apple has also filed two additional petitions for *inter partes* review of the '072 patent based on other prior art combinations, as well as 16 other petitions for *inter partes* review of the other Stefik patents, which claim various aspects of Stefik's DRM system. *See* IPR2015-00440-00444, IPR2015-00446-00458.

Preliminary Response to the Petition (37 C.F.R. § 42.107(a)), CG takes this limited opportunity to point out substantive and non-substantive reasons for denying institution of trial.

First, the Petition should be rejected because it fails to sufficiently identify and explain its precise invalidity theories and supporting evidence, in violation of the particularity required by governing statutes and regulations. The Petition fails to specify with particularity where each element of the claims are found in the references and expressly identify the differences between the claims and the prior art in the Petitioner's assertions of obviousness, improperly relying on CG and the Board to discern the differences based on the rest of Apple's petition. Behind this initial smoke screen lies more obscurity, in the form of conclusory arguments consisting mostly of broad assertions followed by unexplained citations and improper attempts to incorporate extraneous additional argument from a voluminous expert declaration.

Second, the Petition should be rejected because it proposes invalidity grounds based primarily on prior art similar to art previously before the Board and the USPTO. The Petition also asserts a horizontally redundant ground of invalidity when combined across petitions without identifying how one ground improves on any other, violating Board precedent requiring petitioners to identify differences in the proposed rejections. Accordingly, the Board should exercise its discretion and

deny the Petition under 35 U.S.C. §§ 315(d) and 325(d) and the redundancy principles established in *Liberty Mut. Ins. Co. v. Progressive Cas. Ins. Co.*, CBM2012-00003, Paper No. 7 (Oct. 25, 2012).

Third, the assertions of obviousness based on combining Rosen with the teachings of Hartrick are mere conclusory statements that are impermissibly based on hindsight. Because the Petition fails to provide a persuasive fact-based analysis with some rational underpinning to support these conclusions of obviousness, trial must be denied as to the obviousness theories for this additional reason.

As explained in the Office Trial Practice Guide, the Board "may not authorize a trial where the information presented in the petition, taking into account any patent owner preliminary response, fails to meet the requisite standard for instituting the trial." 77 Fed. Reg. at 48,756, 48,757 (Aug. 14, 2012); see, e.g., 35 U.S.C. §§ 314, 324. CG respectfully submits that the deficiencies addressed herein preclude trial on any grounds asserted in the Petition. It is not possible to fully address the numerous other deficiencies of the poorly articulated and underdeveloped grounds asserted in the Petition. See Travelocity.com L.P. et al. v. Cronos Techs., LLC, CBM2014-00082, Paper 12 at 10 (Oct. 16, 2014) ("nothing may be gleaned from the Patent Owner's challenge or failure to challenge the grounds of unpatentability for any particular reason".).

# II. THE PETITION FAILS TO MEET THE REQUIREMENTS FOR INSTITUTING AN INTER PARTES REVIEW

Trial should not be instituted because Apple's Petition does not comply with numerous requirements that must be satisfied.

# A. The Petition Fails to Comply with 35 U.S.C. § 312(a)(3) and 37 C.F.R. §§ 42.22(a)(2) and 42.104(b)(4)

Apple's contentions are conclusory and fail to satisfy the requirements of the rules that a petition contain a detailed explanation of the significance of the evidence and identify where each element of each challenged claim is found in the prior art. A petition must identify "in writing and with particularity, each claim challenged, the grounds on which the challenge to each claim is based, and the evidence that supports the grounds for the challenge to each claim[.]" 35 U.S.C. § 312(a)(3). It must also "specify where each element of the claim is found in the prior art patents or printed publications relied upon." 37 C.F.R. § 42.104(b)(4). Similarly, 37 C.F.R. §§ 42.22(a)(2) requires that each petition include "a detailed explanation of the significance of the evidence including material facts, and the governing law, rules, and precedent." The Office Patent Trial Practice Guide cautions that petitioners should "avoid submitting a repository of all the information that a judge could possibly consider, and instead focus on concise, well organized, easy-to-follow arguments supported by readily identifiable evidence of record." Cisco Systems, Inc. v. C-Cation Techs., LLC, IPR2014-00454,

Paper 12 at 11 (Aug. 29, 2014) (citing 77 Fed. Reg. at 48,763.) The Petition fails these requirements in many respects.

Apple's Petition is virtually impenetrable because it fails to clearly identify where each element of the claim is found in the prior art contrary to 37 C.F.R. § 42.104(b)(4). It first presents summaries of the Rosen system for facilitating open electronic commerce and the data processing system of Hartrick, and then the petition conjures up an entirely hypothetical combination using cherry-picked, disparate teachings from Rosen and Hartrick, allegedly supported by unexplained citations to its expert declaration. (Pet. at 38-44.)

Then, rather than pointing out precisely where the claim limitations are disclosed in the references, the Petition presents conclusory assertions that either mimic the language of each claim limitation or describe the alleged operation of the hypothetical combined Rosen/Hartrick system by referring the reader through overly broad citations to its prior summary and argument and to its expert declaration. (Pet. at 44-60 (47: "See § IV.B.2; Ex. 1021 at 10:1-7, 12:8-12; Ex. 1013 at ¶ E71, E97-98, E124, E105-08"; 49: "See § IV.C; Ex. 1013 at ¶ E117-19, E142; Ex. 1021 at 6:9-22"; 52: "See § IV.C; Ex. 1020 at 6:12-13; Ex. 1021 at 3:53-58, 10:1-14; Ex. 1013 at ¶ 104-E114, E124-E135"; 55: "See § IV.B.2, C, D.1, Ex. 1021 at 3:28-32, 3:48-4:9, 5:23-38, 6:9-22, 9:11-23; Ex. 1013 at ¶ E125-130, E108-114" among other improper incorporations by reference).) The Petition only

rarely explains the significance of these citations. Moreover, the citations are unduly vague and lack sufficient explanation. "[S]uch unexplained citations are inadequate to demonstrate a reason to modify the teachings of a particular reference or to combine the teachings of two or more references to teach or suggest a limitation of a challenged claim." *Gracenote, Inc. v. Iceberg Indus., LLC*, IPR2013-00552, Paper 6 at 22 (March 7, 2014).

In particular, the Petition fails to provide an adequate *Graham* analysis by failing to articulate which claim limitations are lacking in Rosen, and a specific rationale for why it would have been obvious to modify Rosen to incorporate the missing limitations. See Graham v. John Deere Co. of Kansas City, 383 U.S. 1, 17 (1966). Instead, the Petition broadly asserts "Rosen explains that content is distributed in encrypted form along with a decryption ticket that has a 'Usage' field that specifies 'restrictions on usage of the electronic object,' but it does not elaborate on how those restrictions are specified or explicitly describe enforcing them. To implement this functionality in Rosen's system, a person of skill would turn to known techniques such as those described in Hartrick." (Pet. at 22-23.) The Petition's description of the hypothetical combined system does not provide an appropriate obviousness analysis because it fails to identify any missing claim limitations in Rosen, and why any differences would be obvious to one of ordinary skill in view of Hartrick. (Id. at 38-44.) Further, the alleged combined system and modifications are described without stating that any are necessary to rectify elements missing from Rosen. When Apple does address the claim limitations, it merely refers back vaguely to its earlier analysis and unexplained expert declaration. (*Id.* at 44-59.) As a result, the Board and CG can only speculate regarding exactly which claim limitations are being addressed, whether Apple contends that Rosen or Hartrick disclose a particular limitation, why the allegedly disclosed elements would nevertheless require modification to arrive at the claimed subject matter, what specific teachings are being combined, Apple's specific rationale for why a person of ordinary skill would have made the combination, and numerous other aspects of a proper obviousness analysis. (*Id.*)

Apple's above described approach improperly shifts the burden to the Board and CG to discern what particular portions of each reference are being relied upon as meeting the pertinent claim limitations and thereby obscures the actual teachings of the prior art. *See Google Inc. v. Everymd.com LLC*, IPR2014-00347, Paper 9 at 24-25 (May 22, 2014)(denying petition where petition failed to meaningfully address "the scope and content of the prior art and any differences between the claimed subject matter and the prior art"); *Liberty Mut.*, CBM2012-00003, Paper 7 at 3("A petitioner who does not state the differences between a challenged claim and the prior art, and relies instead on the Patent Owner and the Board to determine those differences based on the rest of the submission in the petition risks

having the corresponding ground of obviousness not included for trial for failing to adequately state a claim for relief.").

The deficiency in Apple's analysis is compounded by Apple's practice of citing broadly to portions of the 474-page Declaration of its expert Dr. Alan Sherman. Information contained in exhibits, but not discussed in the Petition, is not incorporated into the Petition. 37 C.F.R. § 42.6(a)(3). The Board has cautioned against the very practice employed by Apple of burying its arguments in an expert declaration. See Cisco, IPR2014-00454, Paper 12 at 7-10 (explaining that 250-page expert declaration "serves to circumvent the page limits imposed on petitions for inter partes review, while imposing on our time by asking us to sift through over 250 pages of [the] Declaration (including numerous pages of claim charts) to locate the specific arguments corresponding to the numerous paragraphs cited to support petitioner's assertions."); Conopco, Inc. v. Procter & Gamble Company, IPR2013-00510, Paper 9 at 8 (February 12, 2014)("[w]e decline to consider information presented in a supporting declaration, but not discussed in a petition, because, among other reasons, doing so would encourage the use of declarations to circumvent the page limits that apply to petitions.").

Approximately 160 pages of the Sherman Declaration are directed to the instant petition. (Ex. 1013 at §§ I-V.C, V.D.7-8, VIII.A-D, and VIII. E.3.) The Declaration includes discussion regarding the Stefik patents, the construction of the

challenged claims, and the disclosures of the asserted Rosen and Hartrick references as they allegedly relate to those claims.<sup>2</sup> It would be impossible for Apple to explicitly incorporate all of Dr. Sherman's statements, arguments, and reasoning into its Petition without grossly exceeding the 60 page limit. Accordingly, Apple has incorporated vast portions of the declaration into its Petition by reference. For example, in its four-page argument that Rosen and Hartrick teach a "repository" (Pet. at 47-50), Apple collectively cites to paragraphs E23-25, E106, E112, E117-121, and E136-145 of the Sherman Declaration, corresponding to approximately six pages of testimony, not counting the internal citations to the declaration included in these paragraphs. (*See, e.g.*, Ex. 1013 at ¶ E106, referring to ¶¶ A62-A90.)

The Sherman Declaration presents further details of the references and expresses legal theories and arguments well beyond those in the Petition. The Declaration also purports to rely on extrinsic documents regarding the state of the art and other information not discussed the Petition. (*See*, *e.g.*, Ex. 1013 at A62-90, A91-97, B13-15.) Such extensive incorporation by reference amounts to

<sup>&</sup>lt;sup>2</sup> The remainder of the Declaration is mostly devoted to other prior art references and other invalidity grounds asserted against the Stefik patents in other pending proceedings.

circumvention of the page limit requirement and is proscribed by 37 C.F.R. § 42.6. Apple is not entitled to this unfair advantage, and the Board should not have to study this large volume of material to salvage a petition that does not specify sufficiently exactly where and how each reference discloses the claimed elements. As such, Apple's Petition fails to make its arguments accessible and instead requires the Board and CG to "play archeologist with the record." *Cisco*, IPR2014-00454, Paper 12 at 12. The Board should disregard the incorporated arguments from the Sherman Declaration.

Apple takes the above-described approach in each of its 19 duplicative and redundant petitions directed to the six related Stefik patents, saddling CG and the Board with the enormous burden of decrypting Apple's obviousness positions. Because the Petition itself fails in numerous respects to adequately identify the supporting evidence and rationale it relies on to challenge specific claim elements, it is deficient and does not support instituting a trial.

## B. The Board Should Not Institute Trial Based on the Petition's Redundant Grounds

The Board should reject this Petition because Apple raises grounds that are redundant in view of the grounds in its related IPR petitions. "[M]ultiple grounds, which are presented in a redundant manner by a petitioner who makes no meaningful distinction between them, are contrary to the regulatory and statutory

mandates, and therefore are not all entitled to consideration." *Liberty Mut.*, CBM2012-00003, Paper 7 at 2. Such redundancies place a significant burden on both the Board and the patent owner, causing unnecessary delay and compromising the ability to complete review within the statutory deadline. *Id.*; 37 C.F.R. § 42.108. Eliminating redundant grounds streamlines and converges the issues. *Idle Free Sys.*, *Inc. v. Bergstrom*, *Inc.*, IPR2012-00027, Paper 26 at 4-5 (June 11, 2013). A redundancy analysis properly focuses on whether the petitioner articulated a meaningful distinction of the relative strengths and weaknesses of its application of the prior art to one or more claim limitations. *EMC Corp. v. PersonalWeb Techs.*, *LLC*, IPR2013-00087, Paper 25 at 3-4 (June 5, 2013).

Here, Apple has collectively raised four grounds of unpatentability against the same six challenged claims in three related Petitions, which totals 24 grounds. The Board (and CG) will be burdened by having to consider these redundant grounds in contravention of 37 C.F.R. § 42.1(b).

Horizontal redundancy exists when a proposed grounds applies "a plurality of prior art references . . . not in combination to complement each other but as distinct and separate alternatives." *Liberty Mut.*, CBM2012-00003, Paper 7 at 3. The references "provide essentially the same teaching to meet the same claim limitation, and the associated arguments do not explain why one reference more closely

satisfies the claim limitation at issue in some respects than another reference, **and** vice versa." *Id.* (emphasis in original).

Apple's grounds, filed serially across these three Petitions are:

Proceeding	Claims	Grounds
IPR2015-00443	1, 8, 10, 16, 18, and 24	103 (ABYSS + Denning + Hartrick)
IPR2015-00444	1, 8, 10, 16, 18,	103 (Kahn + Linn);
IPK2013-00444	and 24	103 (Kahn + Linn + Dyad)
IPR2015-00445	1, 8, 10, 16, 18,	103 (Rosen + Hartrick)
11 N2013-00443	and 24	

Apple relies upon the same Sherman Declaration in support of all three petitions. (Ex. 1013.) Each ground of a given petition is horizontally redundant to the distinct and separate grounds of the other two petitions. For example, the grounds challenging all claims based on Rosen and Hartrick is redundant to three distinct grounds challenging the same claims based on Kahn, Linn, Dyad, ABYSS, and Denning in the combinations shown. Apple inadequately explains which obviousness combination using any of the base references is better (or worse) than the others for any of the challenged claims. (Pet. at 2.) Contrary to the Board's mandate in *Liberty Mutual*, Apple relies on multiple references to provide essentially the same teaching to meet the same claim limitations, and its associated arguments do not explain why one reference more closely satisfies the claim limitation at issue than another reference, and vice versa.

Apple should not be permitted to evade the prohibition against unjustified horizontally redundant grounds through the artifice of spreading them among multiple petitions. Indeed, this tactic only increases the burden on the Board and the patent owner, as well as the prospect for unnecessary delay, contrary to 37 C.F.R. § 42.108 and *Liberty Mutual*.

Related to this, the Board has discretion to reject a petition when "the same or substantially the same prior art or arguments previously were presented to the Office." 35 U.S.C. § 325(d). This provision helps avoid serial challenges and the resulting burden on the USPTO in managing multiple proceedings involving the same patent. 157 Cong. Rec. S1041–42 (daily ed. Mar 1, 2011) (statement of Sen. Kyl.) Similarly, the Board has the authority to decline redundant grounds and petitions under 35 U.S.C. § 315(d) in order to "secure the just, speedy, and inexpensive resolution of every proceeding" under 37 C.F.R. § 42.1(b). See Canon, Inc. v. Intellectual Ventures, LLC, IPR2014-00535, Paper 9 at 17 (Sept. 24, 2014). Here, Apple's four grounds (although each applying a distinct combination of references) collectively involve the same seven references, and the teachings relied on from each reference are substantially the same in each combination in which the reference is used. Neither the Board nor CG should be burdened by handling Apple's duplicative proceedings involving a common set of prior art references and common declarant testimony. The Board should exercise its discretion to deny

the Petition for this additional reason. *See, e.g., id.* at 19-20 (denying review on certain proposed grounds in one petition and rejecting two related petitions entirely based upon duplicative nature of arguments across the three related petitions challenging the same claims of the same patent with different art combinations and the same expert declaration); *SAS Inst. Inc. v. Complementsoft, LLC*, IPR2013-00581, Paper 15 (Dec. 30, 2013) (denying four grounds as substantially similar to grounds based on other prior art and arguments in another IPR), *reh'g denied*, Paper 17 (Feb. 24, 2014) (rejecting argument that page limit requirements prevented petitioner from advancing its most salient grounds in one petition.).

The Petition also relies solely on prior art previously considered by the USPTO. The disclosures of Rosen and Hartrick were previously before the USPTO during prosecution of each of the Stefik patents in the form of related references with substantially the same disclosures. In particular, U.S. Patent No. 5,621,797 to Rosen (Ex. 2021), a divisional of Rosen, and U.S. Patent No. 5,532,920 to Hartrick et al. (Ex 2020), the U.S. counterpart application of Hartrick, were each cited or were part of the record through parent continuing applications during the prosecution of each the Stefik patents. (Ex. 1003 at 2.) Accordingly, the Board should reject the Petition under 35 U.S.C. § 325(d) for asserting the same or substantially the same prior art or arguments previously presented to the Office. *See Prism Pharma. Co. v. Choongwae Pharma Corp.*, IPR2014-00315, Paper 14 at

13 (July 8, 2014) (denying petition because it relied on the same prior art and substantially the same arguments previously presented to the USPTO).

### III. OVERVIEW OF U.S. PATENT NO. 7,523,072

### A. Mark Stefik is a Pioneer in the Field of DRM Technologies

The invention disclosed and claimed in the '072 patent relates to digital rights management ("DRM") technology. DRM technology manages the use and distribution of digital content, such as e-books, music, and videos.

CG—a spinoff of Xerox Corp.—has been a pioneer and industry leader in the development of DRM technologies for nearly twenty years. As a result of its innovations, CG has been awarded over 300 DRM patents worldwide. (Ex. 2019.) CG commercializes these innovations through a robust licensing program. In the past decade, CG licensed its DRM technologies to a diverse array of prominent technology companies, with clients and partners including Microsoft, Time Warner, Sony, Xerox, LG, Sharp, Casio, Panasonic, Hitachi, and Toshiba. (*Id.*)

CG's DRM success and industry recognition stems from the work of Dr. Mark Stefik—the '072 patent's first-named inventor—and his colleagues Peter L. Pirolli and Ralph C. Merkle, at the legendary Silicon Valley research facility

Xerox PARC.<sup>3</sup> Although the use of DRM is widespread in today's digital age, in the period leading up to the filing of the application that led to the '072 patent, internet users were freely distributing and copying content without regard for copyright, and no effective DRM system had been developed. (*See infra* § II.B.) Moreover, there was serious doubt whether publishers would ever be able to control the use and distribution of their digital content. (*See id.*)

Mark Stefik's work at Xerox PARC in the early 1990s fundamentally changed this landscape. Along with his colleagues, he developed a framework for managing the use and distribution of digital content based on trusted systems called "repositories" and "usage rights" that could be associated with the content. (See infra § III.C.) This framework allowed content creators to both specify how their works could be used and distributed, even after they had been received by a user, and to continue collecting revenue from these subsequent uses and distributions. (See infra § III.C.) Existing DRM systems had not provided publishers with this combination of end-to-end control, flexibility, and revenue

<sup>&</sup>lt;sup>3</sup> At the time of Dr. Stefik's invention, Xerox PARC was a division of Xerox Corp. known for such innovations as the laser printer, Ethernet, and the mouse. CG spun off from Xerox Corp. in 2000 to further develop the DRM research that Dr. Stefik and his colleagues began in the early 1990s.

potential. (*See infra* § III.B.) As evidenced by the prominent technology companies that CG counts among its clients and partners, Dr. Stefik's DRM framework continues to be implemented on a wide variety of today's electronic devices.

- B. At The Time of the '072 Patent's Invention, Significant Hurdles Remained in Achieving True Protection for Digital Content
  - 1. Unauthorized copying of digital content was widespread and seen as unavoidable

The application that ultimately led to the '072 patent was filed in November 1994.<sup>4</sup> At that time, recent technological advances led to more content being represented digitally than ever before that presented publishers with a fundamental problem: electronically published content could be nearly perfectly and instantaneously copied and transmitted anywhere in the world at essentially zero cost. (*See* Ex. 2016, Stefik, *Letting Loose the Light: Igniting Commerce in Electronic Publication, in* INTERNET DREAMS: ARCHETYPES, MYTHS, AND METAPHORS 219-20 (Mark Stefik, ed., 1996); Ex. 1003 at 1:45-46.)

Consumers were quick to take advantage of this situation. During the early days of CD-ROM distribution (the late 1980s), concerns over copyright and billing for information use began to arise. By 1994, copyright issues for digital works were unsettled and coming to a boil. (Ex. 2016, *Letting Loose the Light* at 219.)

<sup>&</sup>lt;sup>4</sup> CG reserves the right to submit evidence establishing an earlier conception and reduction to practice of the invention claimed in the '072 patent.

The ease with which digital information could be perfectly reproduced and transmitted, combined with the lack of effective DRM technology and the rapid proliferation of internet service providers such as CompuServ and Prodigy, created an environment that promoted rampant copyright infringement. (Ex. 1003 at 1:45-63; Ex. 2016, *Letting Loose the Light* at 219-20.) Moreover, the conventional wisdom among publishers was that unauthorized copying of their works was unavoidable, and that it would never be possible to effectively control the use and distribution of digital content. (Ex. 2016, *Letting Loose the Light* at 219-20 (reciting publishers' belief that "digital containers for software were inherently leaky vessels and that no viable solution would ever be found").)

As a result, some publishers would not publish content in digital form, as illicit copying was too big a risk to their business, while others would leave out high-value content to protect their profits. (*See generally id.* at 224-25.) Nascent industries dealing in digital content, such as the personal computer software industry, faced similar challenges and concerns. Software providers were forced to accept revenue losses from illegal copying, and attempts at billing schemes proved cumbersome. (*See id.* at 225.) In short, with content creators finding themselves uncompensated for the use and distribution of their works, the quality of digital content was in jeopardy. (*See id.* at 226.)

### 2. Prior attempts to protect digital content were ineffective

The '072 patent discusses several then-existing systems for protecting digital content, each of which had significant limitations. Particularly, these systems either failed to prevent users from making unauthorized subsequent copies or transmissions of content, or simply precluded subsequent copying and distribution altogether, which prevented publishers from collecting revenue from subsequent uses they would have otherwise allowed for a fee.

For example, schemes existed to distribute software that could only be used upon purchase of a "key." (*See* Ex. 1003 at 2:13-19.) This method was often employed in the context of free "demos" of software products. The user would receive the entire software product along with the demo, but could only use the full product after purchasing the key. (*See id.*) This scheme did not prevent subsequent copying or transferring of the software after it was unlocked by the key. (*See id.*)

Similarly, existing billing systems lacked the capability to collect revenue from subsequent copies or transfers of digital content. (*See* Ex. 1003 at 3:63-4:3.) For example, U.S. Pat. No. 4,977,594 (Ex. 1055) by Shear discloses a system for metering and billing for usage of information distributed on a CD-ROM. The system required the addition of a billing module to the user's computer system. But because the billing module was tied to the user's device and not the work itself, any subsequent uses or copies made of the work could not be billed. (*See* Ex. 1003.

at 3:63-4:3.) Other existing billing systems likewise tied the billing mechanism to the user's device and not the work, resulting in the same shortcomings. (*See id.* at 3:34-62.)

On the other hand, some existing systems prevented unauthorized copying and distribution at the expense of revenue generation. For example, VPR Systems Ltd. created a system for controlling the distribution of digital books. (Id. at 2:52-54.) Users downloaded books from point of sale kiosks onto their personal storage cartridges, and then viewed the books on readers. (Id. at 2:52-58.) The system could either be used to sell books or as a library system. (Id. at 2:54-65.) In the library configuration, the kiosk limited the number of copies that could be checked out at one time, and downloaded books were erased from the user's cartridge after a certain check out time expired. (Id. at 2:65-3:2.) But a user could never loan downloaded books to other users, because the books downloaded to one user's cartridge could not be viewed on any other user's reader. (*Id.* at 3:2-4.) Thus, book publishers did not have the option to permit users to loan or make copies of their works for a fee, or to pay for the right to create derivative works, and consequently lost those potential revenue sources. (*Id.* at 3:6-10.)

Other systems imposed restrictive operating conditions. The mechanism disclosed by Griswold in PCT Publication WO 93/01550 (Ex. 2017), entitled "License Management System and Method," allowed users to access licensed

products only when coupled to a communications system. (Ex. 1003 at 2:20-48.) There was thus a continued risk that the licensed product would be rendered unusable if communication with the system was severed. (*See id.* at 2:48-51.) Similarly, the system described in U.S. Pat. No. 4,932,054 by Chou et al. (Ex. 2018) allowed a user's computer to run the protected software only when connected to a hardware device known as a "dongle." (Ex. 1003 at 2:5-12.)

In sum, existing DRM systems were not capable of providing the flexibility to allow users to copy, modify, and distribute digital content while at the same time providing mechanisms for honoring the commercial and intellectual property interests of the work's creators. (*See generally* Ex. 2016, *Letting Loose the Light* at 219-22.)

# C. Dr. Stefik's DRM System Was The First Solution Offering Flexible, Secure, End-to-End, Digital Rights Management

Unlike their contemporaries, Mark Stefik and his colleagues realized it was possible to create a flexible distribution system that both protects *and* compensates content creators. Their system achieves that result through two core concepts. *First,* digital works are stored on and transferred between trusted systems, which the '072 patent calls repositories. *Second,* usage rights can be associated with the digital works stored on the repositories and can determine how works may be used

and if they can be further distributed. (*See* Ex. 1003 at 6:9-12.) The '072 patent specification discloses exemplary ways of implementing both concepts.

A repository is a trusted system for supporting usage rights. (*See infra* § III.F.2.a-d.) Repositories can be used to govern the use and distribution of digital works. The '072 patent discloses several possible types of repositories. One type may both receive and process requests for access to digital works ("server mode") and initiate access requests ("requester mode"). (*See* Ex. 1003 at 7:9-14.) This type of repository can, for example, be used to determine whether the publisher has placed any conditions on the use or distribution of its works and whether those conditions are satisfied, before granting the access request. (*See id.* at 30:42-45, 31:13-14, Fig. 1.) A repository may be used in combination with a rendering device (e.g., an e-book reader or video player) to comprise a system capable of rendering digital works (which broadly include "any audio, video, text, or multimedia work[s]"). (*Id.* at 6:3-7.)

"Many of the powerful functions of repositories—such as their ability to 'loan' digital works or automatically handle the commercial reuse of digital works—are possible because they are trusted systems." (*See id.* at 11:58-61.) In general, trusted systems "are able to take responsibility for fairly and reliably carrying out . . . commercial transactions." (*Id.* at 11:35-37.) In other words, repositories can prohibit all devices except other repositories from accessing or

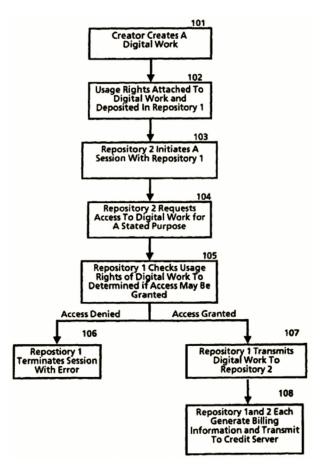
transferring their works, based on the rules that apply to those works. (*See id.* at 11:58-61.) Thus, rules managing how and by whom works could be used and defining the terms on and prices at which users could copy or transfer the works, could overcome the prior art's shortcomings in providing publishers with both trusted, flexible protection of their content and proper compensation. In Dr. Stefik's system, those rules are supplied by usage rights.

In general terms, usage rights can be associated with digital content and "define how a digital work can be used and if it can be further distributed." (*Id.* at 6:9-12.) Dr. Stefik developed a "usage rights language" as a way to implement these rights. As described in the '072 patent, this exemplary language allows publishers to specify both individual rights and sets of rights. Individual rights include, among many others, the right to print or copy a work at a certain cost and the right to transfer or loan a work to another repository. (*Id.* at 17:45-18:3, 19:33-19:49.) Sets of rights comprise multiple individual rights and can define both the manner in which the initial recipient may use the work and on what terms she can make subsequent copies or transfers. (*See, e.g., id.* at 25:1-16.)

Once created, usage rights can be associated with the digital work to which they apply and can continue to control the use and distribution of the work after the work is received by a user's repository. (*Id.* at 6:16-21.) For example, when the usage rights permit the user to subsequently copy the work, the copies will also

have the usage rights associated with them. (*Id.*) This allows publishers to ensure that their works are only used as specified by the rights—no matter how extensive a distribution chain the rights contemplate—and that users are charged at each level of the chain.<sup>5</sup> (*See*, *e.g.*, *id.* at 43:38-60.)

Figure 1 of the '072 patent illustrates how one embodiment of Dr. Stefik's system utilizes repositories and usage rights to handle a request from one repository to access a digital work stored on a second repository. As shown at right, the repository from which access is sought grants access in accordance with the work's usage rights (Ex. 1003 at Fig. 1.) Because usage rights remain associated with the digital



work to which they apply, this process can be repeated with subsequent requests to transmit the work to a new repository.

<sup>&</sup>lt;sup>5</sup> In one embodiment, billing is handled through transactions between the repository, a credit server, and a billing clearinghouse. (*See* Ex. 1003 at 7:42-52.)

In sum, Stefik's DRM system implements usage rights to specify permissible distribution channels and manners of use, and its repositories ensure that no other distributions or uses occur and that publishers receive proper compensation. No previous DRM system had provided this combination of end-to-end control, flexibility, and revenue generation.

### D. The '072 Patent is Directed To a Rendering System and Method

The '072 patent is entitled "Content Rendering Repository." Its claims relate to securely rendering digital documents that have been retrieved from (or stored on) a server-side "document repository." Rendering a digital document is based on the usage right also retrieved from a server-side "document repository." The usage right is "associated with the digital document" and specifies "a manner of use indicating the manner in which the digital document can be rendered." Thus, in the broader context of Stefik's DRM system, the digital document and usage rights have already been created or stored on a server-side "document repository," and the claims address the retrieving of the digital document and usage right from the "document repository" by a "document platform," and then determining if the digital document may be rendered based on the usage right. (See Ex. 1003 at Abstract.)

The three independent claims of the '072 patent each cover similar subject matter. As an example, claim 1 provides:

1. A method for securely rendering digital documents, comprising: retrieving, by a document platform, a digital document and at least one usage right associated with the digital document from a document repository, the at least one usage right specifying a manner of use indicating the manner in which the digital document can be rendered;

storing the digital document and the at least one usage right in separate files in the document platform;

determining, by the document platform, whether the digital document may be rendered based on the at least one usage right; and

if the at least one usage right allows the digital document to be rendered on the document platform, rendering the digital document by the document platform.

Independent claims 10 and 18 are directed to a rendering method that stores a digital document and the usage right in separate files in a "document repository," receives a request from a document platform to transfer a digital document from the document repository to the document platform, authenticates the document platform, determines if the usage right includes a manner of use that allows a transfer of the digital document to or from the document repository, and transfers the digital document and the usage right to the document platform if the authentication is successful.

### E. Level of Ordinary Skill in the Art

Apple's proposed definition of the level of ordinary skill in the art (Pet. at 7), is somewhat too restrictive. CG contends that a person of ordinary skill in the art would hold a bachelor's degree in electrical engineering, computer science or a related field with a few years of experience with digital content distribution and/or computer security.

### F. Claim Interpretation

### 1. Legal standards

Because the Stefik patents are expired, or will expire before the Board issues a decision after trial, the correct standard for claim construction is the ordinary meaning, as would be understood by a person of ordinary skill in the art at the time of the invention in view of the specification. *In re Rambus, Inc.*, 694 F.3d 42, 46 (Fed. Cir. 2012); *Square, Inc. v. J. Carl Cooper*, IPR2014-00157, Paper No. 17 at 2 (June 23, 2014).

## 2. District Court's Markman order construing relevant claim terms

On March 20, 2015, the District Court for the Eastern District of Texas issued its claim construction order for the Stefik patents. (Ex. 2001.) This decision, although not binding on the Board, may be instructive. *Facebook et al. v. Software Rights Archive*, IPR2013-00478, Paper No. 17 at 11 (Feb. 3, 2014). CG proposes that the Board adopt the District Court's construction where noted.

### a) "Repository"

"Repository" means "a trusted system in that it maintains physical, communications, and behavioral integrity in the support of usage rights." This construction was adopted by the District Court, upon review of the Board's prior construction and the parties' arguments. (Ex. 2001 at 15.) CG submits that the Board should adopt this construction for the reasons specified by the Court. (*Id.*)

### b) "Physical integrity"

The District Court has interpreted "physical integrity" to mean "preventing access to information in a repository by a non-trusted system." (Ex. 2001 at 18.) CG submits that a construction that replaces "information" with "content" is more appropriate in view of the teachings of the specification where content is the information in a repository that physical integrity it intended to protect. (*See, e.g.,* Ex. 1003 at 12:2-3 ("Physical integrity applies both to the repositories and the protected digital works."); *id.* at 12:10-11 ("repositories never allow non-trusted systems to access works directly").)

### c) "Communications integrity"

The District Court adopted the Board's previous construction of "communications integrity" to mean that the repository "only communicates with other devices that are able to present proof that they are trusted systems, for example, by using security measures such as encryption, exchange of digital

certificates, and nonces." (Ex. 2001 at 18-19.) This construction should be adopted here for the reasons given by the Court.

### d) "Behavioral integrity"

The District Court adopted the Board's previous construction for "behavioral" integrity," i.e., "requiring software to include a digital certificate in order to be installed in the repository." (Ex. 2001 at 11.) As part of its decision finding claims of the Stefik patents patentable, the Board "[credited] the testimony of the expert witness of ContentGuard, Dr. Goodrich that 'a person of ordinary skill in the art [in 1994] would [have understood] a digital certificate to be an assurance that downloaded software comes from a reputable source, including a measure of tamper resistance." ZTE Corp. v. ContentGuard Holdings, Inc., IPR2013-00137, Paper 58 at 26 (July 1, 2014). Accordingly, CG submits that the Board should adopt the following construction for "behavioral integrity": "requires that software that is to be installed in the repository to include a digital certificate, in other words, an assurance that the software comes from a trusted source known to the repository."

### e) "Usage rights"

The District Court construed "usage rights" to mean "indications that are attached, or treated as attached, to [a digital work / digital content / content / a digital document] and that indicate the manner in which the [digital work / digital

content / content / digital document] may be used or distributed as well as any conditions on which use or distribution is premised." (Ex. 2001 at 23-33.) Apple asserted in the litigation that the specification's description of usage rights being "attached" to a digital work required usage rights to be "permanently attached" to the digital work. (Id. at 23.) CG argued that "attachment" is a metaphor to explain that rights should be associated with content. (Id. at 26-27.) The District Court expressly rejected Apple's proposal of permanent attachment in favor of the broader phrase "attached, or treated as attached" in its construction. (Id.) The District Court also expressly rejected Apple's proposal of requiring "statements in a language" in favor of the broader term "indications" based on the disclosure in the Stefik patents of various possible ways of expressing usage rights. (Id. at 25-26.) For the same reasons articulated by the District Court, Apple's proposed construction of "usage rights" should be rejected to the extent it requires the usage rights to be "statements in a language" that are "permanently attached to one digital work." (Pet. at 12.) Rather, usage rights need only be "indications" that are "attached, or treated as attached to" (i.e., "associated with") a digital work. Accordingly, the Board should adopt the District Court's construction for the reasons stated in the Court's opinion.

Apple correctly notes in its petition that "data constructs such as encryption keys, digital certificates, and digital signatures that are used by the repository to control access to a digital work or data within are not 'usage rights'." (Pet. at 15.)

#### f) "Manner of use"

CG submits that no construction of this phrase is needed at this preliminary stage in view of the arguments submitted with this response. If the Board does proceed to construe this phrase, CG submits that the proper construction is "a way in which [a digital work / digital content / content / a digital document] may be used." The District Court partially adopted this construction, but added an unnecessary limitation: "as contrasted with a condition that must be satisfied before such use is allowed." (Ex. 2001 at 45.)

### g) "Digital document"

A "digital document" is simply "any work that has been reduced to a digital representation." In the litigation, Apple proposed "a type of digital work that is written in or viewable as text, for example a book, magazine article, or a message." (Ex. 2001 at 37.) The Court credited CG's arguments that a digital document is not limited to a particular kind of content, in view of claim differentiation (claim 3 specifies that at least a portion of the digital document is a software program) and other examples of use of the term "document" in the specification. (*Id.* at 39-40.) Upon examination of the specification, the Court found that the term "digital

document" to have its plain meaning. (*Id.*) Apple's convoluted construction proposed in the Petition (at 9) should be rejected, as it improperly attempts to limit the construction to statements in the Abstract and unrelated teachings from the specification, including the glossary definition of "composite digital work." Apple also attempts to incorporate the concept of "permanent attachment" of usage rights, which was expressly rejected by the Court. (Ex. 2001 at 33.)

### h) "Document platform"

The parties agreed in the litigation that the term "document platform means "a repository for rendering a digital document," and this construction was adopted by the Court. (Ex. 2001 at 64-65.) The Board should adopt this construction.

With regard to the remaining terms for which Apple proposes constructions,

Patent Owner reserves the right to address the limitations in its responsive brief should trial be instituted.

## IV. THE PETITION FAILS TO MEET APPLE'S BURDEN TO SHOW A REASONABLE LIKELIHOOD OF SUCCESS ON ITS INVALIDITY GROUNDS

Inter partes review should not be granted because the Petition does not demonstrate a reasonable likelihood of success on any of the proposed grounds of invalidity. The Petition fails to clearly address the differences between the prior art and the claims; addresses individual claim elements in isolation while failing to give effect to the claims as a whole; presents snippets of the prior art out of context

while ignoring the full disclosure of the references; and fails to present any rational underpinning to support conclusions of obviousness.

### A. Legal Standards

The Petition challenges claims 1, 8, 10, 16, 18, and 24 as invalid as allegedly directed to obvious subject matter.

Under 35 U.S.C. § 103, the question is whether the claimed subject matter would have been obvious to a person of ordinary skill in the art at the time the invention was made. To assess the issue, the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved. *Graham*, 383 U.S. at 17. Secondary considerations such as commercial success, long felt but unsolved needs, and failure of others should also be considered. *Id.* at 35-36. The commercial success of the infringer's product is as relevant as that of the patentee. *Panduit Corp. v. Dennison Mfg. Co.*, 774 F.2d 1082, 1099-1100, 473 (Fed. Cir. 1985).

A reference must be considered for all that it teaches, including disclosures that diverge and teach away from the invention at hand as well as disclosures that point toward and teach the invention. *In re Dow Chem. Co.*, 837 F.2d 469 (Fed. Cir. 1988). It is improper to take statements in the prior art out of context and give them meanings they would not have had to a person of ordinary skill having no

knowledge of the claimed invention. *In re Wright*, 866 F.2d 422, 426 (Fed. Cir. 1989).

Each *Graham* factor must be addressed before a conclusion of obviousness can be reached. *In re Cyclobenzaprine Hydrochloride Extended-Release Capsule Patent Litig.*, 676 F.3d 1063, 1077 (Fed. Cir. 2012); *Intri-Plex Techs. v. St. Gobain*, IPR2014-00309, Paper 83 at 19 (March 23, 2014); *Cisco*, IPR2014-00454, Paper 12 at 13–15 (denying petition's obviousness grounds.). Importantly, the obviousness inquiry must be taken without any "hint of hindsight," *Star Scientific, Inc. v. R.J. Reynolds Tobacco Co.*, 655 F.3d 1364, 1375 (Fed. Cir. 2011), so as to avoid "reconstruction by using the patent in suit as a guide through the maze of prior art references, combining the right references in the right way so as to achieve the result of the claims in suit." *In re NTP, Inc.*, 654 F.3d 1279, 1299 (Fed. Cir. 2011) (internal citation omitted).

Conclusory allegations regarding obviousness are insufficient to establish a reasonable likelihood of unpatentability in an IPR petition. *Sony Corp. of America v. Network-1 Security Solutions, Inc.*, IPR2013-00092, Paper 21 at 19, 28 (May 24, 2013) (Board denied obviousness grounds in petition because conclusory statements that addition of any claim element not disclosed "is a predictable variation that could have been implemented by a person of ordinary skill in the art at the time of the alleged invention" were insufficient.).

The Petitioners "must show some reason why a person of ordinary skill in the art would have thought to combine particular available elements of knowledge, as evidenced by the prior art, to reach the claimed invention." Heart Failure Tech. v. Cardiokinetix, Inc., IPR2013-00183, Paper 12 at 9 (July 31, 2013) (citing KSR) Int'l Co. v. Teleflex Inc., 550 U.S. 398, 418 (2007)) (Board denied petition on patent relating to a device for dividing a human heart chamber because petitioner's bare assertion that prior art related to human heart repair did not amount to "some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness."); Dominion Dealer Solutions, LLC v. Autoalert, Inc., IPR2013-00223, Paper 9 at 19 (August 15, 2013) (Board denied petition on obviousness grounds, stating: "[n]otably absent from [petitioner's] stated rationale is a sufficient explanation of how the references may be combined, from the perspective of one with ordinary skill in the art, to arrive at the claimed invention, and why the proffered combination accounts for all the features of each claim.").

- B. The Petition Fails to Demonstrate That the Challenged Claims Are Obvious Based on Rosen in View Of Hartrick
  - 1. U.S. Patent No. 5,557,518 to Rosen: "Trusted Agents For Open Electronic Commerce"

Rosen states the problem he is attempting to solve as follows: "If one wants to purchase a movie...anonymously, then how can the buyer be assured he will receive the movie if he pays first, or the seller be assured that he will be paid if he

delivers the movie first?" (Ex. 1020 at 1:49-54.) Rosen's solution is an electronic payment system using so-called trusted agents as surrogate actors for customers and merchants in a commercial transaction. Trusted agents are distinct modules built into transaction devices, which also include a separate host processor and a money module. (*Id.* at 7:65-8:2.)

Rosen teaches that it is the trusted agent, which is separated from the rest of and not the entire transaction device that is tamper-proof and follows protocols to perform secure purchase transactions with other trusted agents. (*Id.* at 2:12-28, 4:25-32, 11:6-12.) For example, Rosen discloses that "the electronic object is encrypted so that it may be stored outside of the trusted agent." (*Id.* at 23:21-22.) If the transaction device outside of the Trusted Agent were secure, it would be unnecessary to encrypt the electronic object for storage outside of the Trusted Agent.

Rosen discloses that Merchant Trusted Agents ("MTAs") transfer merchandise, in the form of encrypted electronic objects and their associated decryption tickets, to Customer Trusted Agents ("CTAs") during a purchase transaction. (*Id.* at 4:33-64.) A decryption ticket may include numerous different fields, as shown in FIG. 2. In a single sentence, Rosen states that one field is a "Usage field" which "specifies restrictions on usage of the electronic object." (*Id.* at 6:12-13.) Rosen is silent on what those "restrictions on usage" might be, who

specifies the restrictions, how they would be expressed, and importantly whether they are enforceable by any portion of the customer's or merchant's systems. The usage field is never mentioned again in the patent.

During a transaction, the encrypted electronic object is passed to the purchaser's host processor that runs general applications, but the decryption ticket containing the key to decrypt the object is held separately in the CTA until successful completion of the purchase transaction. (Id. at 4:65-5:3; 19:8-18; 24:44-55.) Accordingly, a purchaser will not be able to use the digital object until the purchase transaction is successfully completed, ensuring that a dishonest user cannot steal a digital object by breaking off a transaction before it is completed. Once the transaction is complete, the CTA passes the key to the host's transaction application for decryption of the digital object; the host is then free to use the digital object, and the CTA is not further involved in controlling the use of the object. (Id. at 24:44-55, 8:22-34.) As such, Rosen does not contemplate or suggest that the CTA enforces any restrictions on use of the digital object because the CTA has given up any kind of control it had over the use of the object by passing the decryption key to the host.

# 2. EP 0567800 to Hartrick et al.: "Data Processing System and Method to Enforce Payment of Royalties When Copying Softcopy Books"

Hartrick addresses the problem of "enforc[ing] the payment of royalties to publishers and authors of softcopy books, when a reader desires to make a copy of a portion or all of the book." (Ex. 1021 at 4:14-17.) He states a number of objects of the invention including "provid[ing] an improved method for managing the soft copy text of a structured document in a data processing system." (*Id.* at 5:19-38.) To achieve the stated objects, Hartrick proposes a softcopy book reading program that operates in tandem with a royalty payment program. (*Id.* at 6:7-9.) The book reading program reads a softcopy book from a general purpose storage disk provided by the user and renders the text on a display. (Id. at 6:1-6.) Hartrick teaches that copying of a book or other structured document can be limited or prevented using two different types of "tags." The first is a "royalty tag," which tells the user's system to inhibit the printer, disk drive storage, or communications adapter from operating and to invoke a royalty payment process, which must be completed before the user is allowed to perform the desired operation. (Id. at 10:1-18.) The "royalty tag" is used to embed royalty payment information into the text of the document, or in a separate file that accompanies a book. (Id. at 5:48-52.) The second tag disclosed is called a "security label." Hartrick teaches three different security labels, including "Company Confidential," "Do Not Copy," and "Do Not Distribute." The "Do Not Copy" label is used to limit or prevent attempts to copy, print, or transmit a copy of a structured document but does not provide the option of paying a royalty to be allowed to reproduce the document. (*Id.* at 3:28-32.) The other two labels ("Company Confidential" and "Do Not Distribute") are not further discussed.

Contrary to Apple's suggestion (Pet. at 35-36), the royalty tag and the "Do Not Copy" security label are used to prevent reproduction of a document generally, i.e., copy, print, or transmit, and are not specific to the type of reproduction. (Ex. 1021 at 10:7-18.) While three separate claims of Hartrick specify that a second data processor (such as a publisher's computer) may send different authorization messages (for printing, copying, or communicating (i.e., transmitting) a document as stated in claims 1, 2, and 3, respectively), this is not a teaching that there are "copy," "print," or "transmit" specific royalty tags. (Id. at 22:7-10, 22:42-45, 23:21-24.) Indeed, Hartrick's claims each specify that the authorization message correlates to the command given by the user, not to a unique royalty tag. (Id. at 21:45-56, 22:27-38, 23:4-17.) Accordingly, Hartrick does not suggest using unique royalty tags specific to particular functions or operations (i.e., "print" or "transmit".)

To enforce the security tags, the Hartrick system creates a parameter table that is loaded with the parameters associated with the tags within the structured

document. (Ex. 1021 at 10:45-11:19.) The parameter table starts as a default parameter table loaded during the initial program loading for the royalty payment program. (*Id.* at 10:55-11:4.) Hartrick discloses that the processor will search through the formatted text stream of the structured document to find the tags and responsively load the parameter table. (*Id.* at 10:45-54.) In other words, the parameter table is built up using the separate structured document. (*Id.*) Hartrick's system then refers back to the parameter table whenever it enforces a tag. (*See*, *e.g.*, *id.* at 11:14-19 and 11:46-58; 12:13-36; 12:56-13:13; 13:22-33 (all discussing referral to the parameter table with respect to various tags).)

Hartrick does not discuss the use of trusted systems including the maintenance of any of Stefik's integrities in the support of usage rights in connection with use and distribution of content. Moreover, Hartrick does not discuss how to implement its teachings relating to enforcing the payment of royalties other than as applied to softcopy books. (*See*, *e.g.*, Ex. 1021 at 7:35-40.) This limited approach contrasts to Stefik's novel solution of trusted repositories, which control the use and distribution of all types of content by enforcing usage rights associated with the content. (*See supra* § III.C.) This paradigm ensures that content will only be further distributed between trusted repositories in accordance with its usage rights, and allows content providers to be compensated for subsequent uses or copies of content made. (*Id.*) To make this scheme work, the

repositories must be trusted to faithfully carry out commercial transactions. (Ex. 1003 at 11:58-67.) This trust is established by requiring the repositories have the trinity of physical, communications, and behavioral integrities. (*Id.*) Neither Rosen nor Hartrick contemplated a distributed system of trusted repositories that could be relied on to control the use and distribution of content through the enforcement of usage rights.

## 3. Apple's analysis fails to compare Rosen and Hartrick to the claims thereby failing to provide a proper obviousness analysis

After describing the alleged teachings of Rosen and Hartrick, the Petition jumps to combining the references before attempting to explain how Rosen (or Hartrick) disclose any limitations of the claims. (Pet. at 38-44.) Accordingly, it is not clear that the modifications and redesign of the Rosen system using the alleged "Hartrick techniques" are necessary to meet any particular claim limitation. Such analysis is contrary to *Graham* obscures the teachings of the references, and fails to precisely state which portions of the references are being relied upon. *Google*, IPR2014-00347, Paper 9 at 24-25; *Liberty Mut.*, CBM 2012-0003, Paper 7 at 3. For instance, when Apple later addresses the actual claim limitations, the Petition merely refers vaguely back to its earlier generalized discussion divorced from the claims. (Pet. at 44-59.) Without comparing the individual references to the claims, Apple's obviousness analysis is legally deficient.

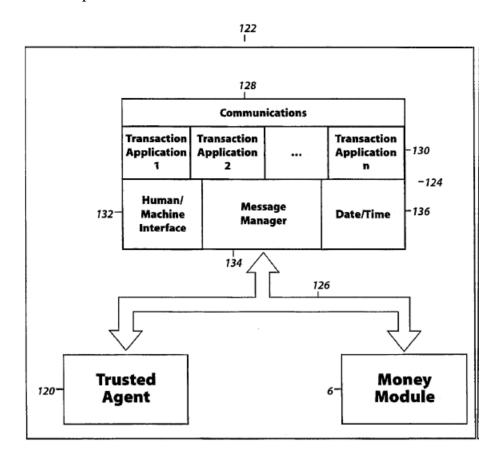
4. Hartrick's reading program could operate on Rosen's client host processor: there is no motivation to instead modify Rosen's CTA to execute the Hartrick system as Apple alleges

Apple fails to provide a single compelling reason to combine the references in the proposed manner. Apple is presented with a serious problem: the Petition must make two references individually failing to suggest a repository having all three required integrities into a system that does.

When looking at Rosen and Hartrick, Rosen has a system that allows for secure purchasing transactions, but after the transaction is complete there is no control on the content. Thus, Apple introduces Hartrick, which uses security tags to limit certain uses of softcopy books. If one of ordinary skill wanted to implement Hartrick's system with Rosen's, the plainly obvious way to combine them would be to load Hartrick's softcopy book reading program into Rosen's host processor 124. (Ex. 1020 at FIG. 3.) There is no reason at all why Hartrick's reading program would not work perfectly well on that processor. (Ex. 1021 at 1:3-8 (Hartrick states that his "invention ... relates to the management of copying and printing operations for a softcopy document by a data processor . . . ") (emphasis added).) In that approach, the softcopy book is purchased using the system described by Rosen, and after the softcopy book is unlocked and stored on the client's host processor 124, Hartrick's reading program can function exactly as Hartrick describes. Thus, the features of both systems are fully combinable in this easy fashion, although this combination fails to exhibit the required trinity of repository integrities in several ways.

Apple essentially admits that the above obvious way to combine the references fails to meet the claim limitations because Apple proposes significant and *not* obvious modifications to both the Rosen and Hartick systems in a hopeless attempt to create a repository as described by Stefik. Key to Apple's attempt to create a repository in hindsight is to turn the limited functionality CTA of Rosen's system into an integral portion of Hartrick's reading program. (Pet. at 41-42, 49-50.) Rosen teaches away from such a significant modification of the CTA given the fundamental architecture of his system. The only function of the CTA is to be involved in purchase transactions with the MTA. (See, e.g., Ex. 1020 at 4:6-9: "To achieve the secure exchange of payment for electronic merchandise when buyer and seller are transacting electronically, the present invention introduces trusted agents 2, 4 for both the customer and merchant.") Once the transaction is completed, Rosen teaches that the CTA passes the decryption key for the content to the host processor with no strings attached. (Id. at 24:49-55.) Once the key is given to the host, any sort of control the trusted agent might have had over the digital object is gone – the content genie is out of the bottle.

Rosen's FIG. 3 included below enforces that separation of function between CTA 120 and host processor 124 for the client device 122.



The CTA 120 and host processor 124 are literally different physical elements connected by a bus 126. Rosen's system further emphasizes the separate nature of these elements by needing to encrypt electronic objects that are stored on the host processor: "the electronic object is encrypted so that it may be stored outside of the trusted agent." (*Id.* at 23:21-22.)

In view of Rosen's specific teaching of an architecture that both physically and functionally separates the CTA and host processor, one of skill in the art would not be motivated to convert the CTA into a part of Hartrick's softbook reading

program as Apple alleges. This would amount to a serious break in philosophy in Rosen's system. See Plas-Pak Indus. v. Sulzer Mixpac AG, 2015 U.S. App. LEXIS 1456 at \*9 (Fed. Cir. Jan. 27, 2015) (affirming Board's holding that claims were not obvious because the combination of references required substantial reconstruction and affected the principle of operation of the base reference.) Moreover, the extent of modification needed to the CTA to operate as Apple alleges is extreme. The CTA has a limited function of participating in transactions including passing the key to the host transaction application to unlock a purchased digital object in response to receiving confirmation that the transaction is complete. To enforce Hartrick's security tags, the CTA would now have to be involved in every loading of the royalty payment program including building and enforcing Hartrick's parameter table. (Ex. 1021 at 6:9-15, 10:45-11:19.) Then, the CTA would need to be active for the entire time a royalty payment program is open in order to enforce the parameters in the table, all of which is happening in conjunction with whatever resources are needed from the separate and distinct host processor to actually render the book for the user. This level of modification, especially when considering how easy it would be to just load Hartrick's system as a whole into Rosen's host processor, simply cannot be considered "obvious."

Apple's shortcomings with this combination are made all the more apparent when, throughout its Petition, Apple relies on unexplained citations and purports to

incorporate the speculative testimony of its expert by reference in violation of 37 C.F.R. § 42.6(a)(3). For example, the Petition fails to explain what it means by its statement that the "MTAs already sell various types of tickets to customers and thus have analogous functionality." (Pet. at 41.) The Petition improperly cites broadly to eight columns of Rosen and additional unexplained citations but provides no explanation of how this alleged "analogous functionality" renders the alleged modification obvious. *See Gracenote*, IPR2013-00552, Paper 6 at 22. In another example, the Petition states it would be obvious to integrate the alleged "rights checking functionality" of Hartrick, because the CTA "can be trusted to enforce security protocols." (Pet. at 42.) This statement is completely unsupported, particularly in view of the improperly incorporated unexplained Expert Declaration citations (which contain further internal citations).

Importantly, neither Rosen nor Hartrick envisioned an end-to-end digital rights management system built on a network of trusted systems that could be relied upon to faithfully handle the use and distribution of digital content in accordance with usage rights associated therewith, as taught by Stefik. Because neither Rosen nor Hartrick contemplated such a system, Apple is forced to rely on impermissible hindsight to improperly modify the references to bridge this gap.

- 5. Even if combined, Rosen in view of Hartrick fails to suggest several claim limitations
  - a. Rosen in view of Hartrick fails to suggest a "Document Repository" or a "Document Platform" that Enforces "Usage Rights"

Each of the challenged claims requires a "document repository" or a "document platform" that enforces "usage rights." These requirements are expressed in various claim limitations. Claim 1 requires "determining, by the document platform, whether the digital document may be rendered based on the at least one usage right." (Ex. 1003 at 52:17-19.) Claim 10 requires "determining, by the document platform, whether the request may be granted based on the at least one usage right. . " (Id. at 52:56-62.) Claim 18 requires "determining whether the digital document may be transferred and stored on the document platform based on a manner of use included in the at least one usage right" and "determining, by the document platform, whether the digital document may be rendered based on the at least one usage right." (Id. at 53:35-38, 54:11-13.) Accordingly, the document platform or the document repository enforce a usage right by making a determination about whether the digital document may be accessed, transferred, or rendered based on the usage right.

Apple argues that "[t]he teachings of <u>Rosen</u> considered with those in <u>Hartrick</u> suggest implementing the <u>Rosen</u> scheme so that each transaction device is a 'repository.'" (Pet. at 47.) However, Apple's speculative combination "scheme"

fails to disclose or suggest a repository having the trinity of physical, communications, and behavioral integrities in the support of usage rights. Each integrity has independent requirements, which when combined, render the system a trusted system that can be relied on to enforce usage rights associated with content. (Ex. 1003 at 11:58-67.) If one of the integrities is missing, the system is not a repository within the meaning of the Stefik patents. In particular, the Rosen transaction devices as purportedly modified by the teachings of Hartrick are deficient in at least physical and behavioral integrities and are not capable of enforcing usage rights.

## b. Rosen in view of Hartrick fails to suggest a "repository" with "physical integrity"

Physical integrity requires that the repository prevents access to content by a non-trusted system. Apple alleges that the Rosen transaction device has physical integrity because the "CTD stores content in encrypted form, and the content cannot be accessed unless the CTA has the decryption ticket." (Pet. at 48.) Apple's analysis fails to acknowledge the full teachings of Rosen, which disclose that the CTA, without conditions, gives the decryption key from the decryption ticket to the transaction application of the host upon completion of a successful purchase transaction. (Ex. 1020 at 24:52-55: "Ticket Holder A [of the CTA] sends the decryption key and the electronic object identifier from the decryption ticket to a

host transaction application for its use in decryption of the electronic object.") The transaction device host, unlike the CTA, is neither physically secure nor prevents access to content by non-trusted systems. Apple implicitly acknowledges that the transaction device is untrusted: "The encrypted electronic object can be stored in the transaction device's memory as it is inaccessible without the decryption ticket, and the CTA will not allow access the decryption ticket until the transaction is complete." (Pet. at 32; *see also* Ex. 1020 at 19:8-11.) Why would the electronic object need to be encrypted when stored in the transaction device memory if the transaction device were trusted?

As a whole, Rosen teaches the use of trusted agents because the user, and by extension the user's system (i.e., the transaction device), cannot be trusted to conduct anonymous purchase transactions. (*See*, *e.g.*, Ex. 1020 at 1:49-57, 2:4-8, 4:25-32.) The Petition does not rely on Hartrick with respect to physical integrity. (Pet. at 47-48.) Stefik teaches that in contrast to generic computer systems, which by design "cannot guarantee that their platform will not be used to make unauthorized copies [of content]," "repositories prevent access to the raw data by general devices and can test explicit rights and conditions before copying or otherwise granting access." (Ex. 1003 at 12:11-13, 12:23-25.) In view of the above, the Petition fails to establish that the Rosen transaction device maintains physical integrity.

## c. Rosen in view of Hartrick fails to suggest a "repository" with "behavioral integrity"

Behavioral integrity "requires that software that is to be installed in the repository to include a digital certificate, in other words, an assurance that the software comes from a source known to the repository." This part of behavioral integrity preserves the repository so that it can function, e.g., enforce usage rights, in an expected manner. (See Ex. 1003 at 12:46-48: "Behavioral integrity is maintained by requiring that repository software be certified and be distributed with proof of such certification"; 42:44-46: describing the uninstall transaction to remove software from a repository: "Since uncontrolled or incorrect removal of software from a repository could compromise its behavioral integrity, this step is controlled.") The Petition argues that the transaction device of Rosen "would" have behavioral integrity because the trusted agent "validates the object against the digital signature and deletes the object if the signature is invalid." (Pet. at 49.) Rosen is silent about requiring a digital certificate or other assurance that the software comes from a trusted source known to the transaction device in order to install software in something that acts like a repository. At best, Rosen suggests that the CTA checks the integrity of a digital object during a purchase transaction. (See Ex. 1020 at FIG. 12A, element 410; 18:5-34.) Neither Rosen, nor Hartrick,

provides any suggestion to install software that is used to execute repository functions (e.g., repository software to enforce usage rights.)

The Petition does not rely upon Hartrick for any teachings related to requiring a certificate to provide assurance that software comes from a trusted known source for software to be installed. (Pet. at 48-49.) Accordingly, the Petition fails to establish that Rosen in view of Hartrick teach or suggest a repository having behavioral integrity.

### d. Rosen in view of Hartrick fails to suggest a "repository" that enforces "usage rights"

Apple argues separately that the transaction devices "would" support usage rights because the "rights checking technique of Hartrick's royalty payment program is implemented in every trusted agent." (Pet. at 49.) The Petition provides a string of similarly conclusory statements about the alleged operation of the hypothetical transaction device. (*Id.*) Apple cites back to earlier argument, its unexplained expert declaration, and to Hartrick for alleged support of its arguments. (*Id.*) The cites to Hartrick do not provide any support for how or why one of ordinary skill would implement the alleged rights checking technique in Rosen's trusted agent. *See Gracenote*, IPR2013-00552, Paper 6 at 22.

Apple also does not state which part of its earlier explanation of the combination of Rosen and Hartrick supports its argument. Indeed, the Petition fails

to explain how the operation of the CTA would have to be modified to operate in the manner suggested. Importantly, the Petition fails to recognize that once the decryption key is passed from the CTA to the transaction application of the host, any control that the CTA might have had over the content would be lost. The Petition provides no explanation how to overcome this technical obstacle.

Further, there is no suggestion in Rosen that the trusted agent would be involved in the use of the digital object by the host (as opposed to the purchase transaction) or would somehow be able to override processes in the host transaction application to interrupt any prohibited copying requests made by the user. Apple's Petition simply fails to contemplate all of the significant required modifications to Rosen's principles of operation. The scope and sheer number of the modifications to the Rosen transaction device described in the Petition further suggest that it would not be obvious to one of ordinary skill to modify the transaction devices as suggested by Apple. *See Plas-Pak Indus.*, 2015 U.S. App. LEXIS 1456, at \*9.

With regard to the alleged modification of the MTA, Apple's contentions are similarly conclusory and without sufficient explanation or support in the references. (Pet. at 50.) Further, even if it were obvious to allow authors to specify usage restrictions as suggested by the Petition, Apple provides no explanation about how the trusted agent protocol would need to be modified for any such usage

restrictions to play a role in the purchase transactions between trusted agents described in Rosen. For example, how would the CTA specify a desired usage right along with a purchase request to the MTA? How would the MTA resolve such a request? None of the Petition, Rosen, or Hartrick provides any teaching or suggestion of such a protocol. *Microsoft Corp. v. Secure Web Conference Corps.*, IPR2014-07745, Paper 15 at 3-4 (Nov. 12, 2014) (denying Petition for failing to describe necessary modification to base reference.) Accordingly, the Petition fails to establish that Rosen in view of Hartrick suggest a repository that enforces usage rights.

6. Rosen in view of Hartrick fails to suggest "receiving a request from a document platform to transfer a digital document from a document repository to the document platform..."

Further, the Petition fails to adequately explain how Rosen and Hartrick disclose the full "receiving a request. . .to transfer" limitation of claim 18. For example, the Petition merely describes the hypothetical operation of the alleged combined system (Pet. at 51) rather than 1) pointing to where the claim limitations are found in Rosen, 2) describing any differences between the teachings of Rosen and the server mode limitation, and 3) explaining why the differences would be obvious to one of ordinary skill in view of Hartrick as required in an adequate

Graham analysis. Google, IPR2014-00347, Paper 9 at 24-25; Liberty Mut., CBM 2012-0003, Paper 7 at 3.

Instead of providing a proper obviousness analysis, Apple refers vaguely back to its prior discussion, relying on CG and the Board to figure out what portions of the prior discussion actually support its arguments. Because Apple fails to establish that the Rosen trusted agents (or the transaction devices) have the claimed "server mode" the Petition fails to meet 37 C.F.R. § 42.104(b)(4) requiring that the Petition "specify where each element of the claim is found." *Universal Remote Control, Inc. v. Universal Elecs., Inc.*, IPR2013-00152, Paper 8 at 17 (Aug. 19, 2013) (denying institution of *inter partes* review).

#### C. Secondary Considerations

CG disputes Apple's assertion that there are no secondary indicia of non-obviousness relevant to the challenged '072 patent claims, a representation that could only have been made by ignoring abundant evidence available to Apple, including of its own commercial success practicing the inventions claimed. Because Apple has not demonstrated a reasonable likelihood of success on any grounds of the Petition, and to avoid unnecessary burden on the Board, CG does not submit specific evidence relevant to secondary considerations at this stage.

Preliminary Response in IPR2015-00445 U.S. Patent No. 7,523,072

### V. CONCLUSION

For the foregoing reasons, *inter partes* review with regard to the '072 patent should not be initiated. CG notes that this is a preliminary response and reserves its right to supplement the present arguments and/or add new arguments at a later date if the Petition is granted in whole or in part.

Respectfully submitted, FITCH EVEN TABIN & FLANNERY LLP

Dated: April 15, 2015

By: /Nicholas T. Peters /

Nicholas T. Peters Registration No. 53,456 ntpete@fitcheven.com

120 South LaSalle Street Suite 1600 Chicago, Illinois 60603 (312) 577-7000 (312) 577-7007 (fax)

### **CERTIFICATE OF SERVICE**

Pursuant to 37 C.F.R. § 42.6(e), the undersigned hereby certifies that a true copy of the foregoing PRELIMINARY RESPONSE OF PATENT OWNER was served this 15th day of April, 2015, by e-mail upon the following:

Jeffrey P. Kushan Michael Franzinger iprnotices@sidley.com Sidley Austin LLP 1501 K Street, N.W. Washington, DC 20005

Petitioner has consented to service by electronic means.

Respectfully submitted, FITCH EVEN TABIN & FLANNERY LLP

Dated: April 15, 2015 By: /Nicholas T. Peters/

Nicholas T. Peters Registration No. 53,456 htpete@fitcheven.com

120 South LaSalle Street Suite 1600 Chicago, Illinois 60603 (312) 577-7000 (312) 577-7007 (fax)

### **Attachment A**

### **EXHIBIT LIST**

Exhibit	Document
2001	ContentGuard Holdings, Inc. v. Amazon.Com, Inc., et al., Case Nos.
	2:13-cv-1112 and 2:14-cv-61, Memorandum Opinion and Order (Dkt.
	No. 459) (E. D. Tex. Mar. 20, 2015)
2002-	Reserved
2015	
2016	Stefik, Letting Loose the Light: Igniting Commerce in Electronic
	Publication, in Internet Dreams: Archetypes, Myths, And Metaphors 219-
	20 (Mark Stefik, ed., 1996)
2017	PCT Publication WO 93/01550 to Griswold
2018	U.S. Pat. No. 4,932,054 to Chou et al.
2019	ContentGuard company biography, http://contentguard.com/company/
	(last accessed 4/15/2015)
2020	U.S. Pat. No. 5,532,920 to Hartrick et al.
2021	U.S. Pat No. 5,621,797 to Rosen
2022	Reserved
2023	Reserved