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For: Data Storage and Access Systems

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PETITION FOR COVERED BUSINESS METHOD PATENT REVIEW OF UNITED STATES PATENT NO. 8,336,772 PURSUANT TO 35 U.S.C. § 321, 37 C.F.R. § 42.304

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I.   INTRODUCTION

Pursuant to § 321 and Rule § 42.304,[1] the undersigned, on behalf of and acting in a representative capacity for Apple Inc. ("Petitioner"), petitions for review under the transitional program for covered business method patents of claims 1, 5, 8, and 10 (challenged claims) of U.S. Pat. No. 8,336,772, issued to Smartflash Technologies Limited and assigned to Smartflash LLC ("Patentee"). Petitioner asserts it is more likely than not that at least the challenged claims are unpatentable for the reasons herein and requests review of, and judgment against, the challenged claims under §§ 101 and 103.

As discussed in Sec. III.B., *infra*, Petitioner has concurrently filed two other CBM Petitions, requesting judgment against different '772 claims based on different prior art. The Director, pursuant to Rule 325(c), may determine that merger or at minimum coordination of these proceedings is appropriate.

Petitioner previously filed CBM2014-00110/111 seeking review of the '772 patent under §§102 and 103. In its Decisions Denying Institution, the Board determined that Petitioner had not shown that it was more likely than not that it would prevail in demonstrating that Stefik and/or Ginter, or Stefik or Ginter combined with

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[1] Petitioner is demonstrating, in pending litigation, that these claims are invalid for numerous additional reasons. All section cites herein are to 35 U.S.C. or 37 C.F.R., as the context indicates, and all emphasis herein added unless otherwise noted.

Poggio and/or Sato rendered obvious limitations related to "code to request identifier data..." CBM2014-00110, Pap. 7, at 15-18; -00111, Pap. 7, at 15-21. In light of the Board's decision, Petitioner now identifies additional prior art—Subler (Ex. 1236)—with explicit disclosures of the limitations related to "code to request identifier data…" For example, Subler discloses an end user device that provides a powerful, easy-to-use interface to browse through and analyze products available from a storage database. Ex. 1236 3:46-52. The end user device software includes code that retrieves product information from the database and presents the information to the user in a windowed graphical user interface. Ex. 1236 4:49-54; 5:26-30. Petitioner has also identified additional disclosures in Ginter and Poggio concerning these limitations, further confirming a POSA[2] would have found it obvious and routine to implement the system disclosed by Ginter and Poggio using the expressly advantageous teachings of Subler and/or Sato, detailed in §IV.C, *infra. See, e.g.*, Ex. 1219 ¶¶ 58-66.

The challenged claims merely recite basic computer systems well-known in the field of data storage and access, including a "handheld multimedia terminal for retriev-

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[2] References to a POSA refer to the knowledge or understanding of a person of ordinary skill in the art POSA as of October 25, 1999. A POSA would have at least a B.S. degree in E.E., C.S., or a telecommunications related field, and at least three years of industry experience that included client-server data/information distribution and management architectures. *See* Ex. 1219 ¶¶ 25, 28 n.3.

ing and accessing protected multimedia content" and a "data access terminal for con-

trolling access to one or more content data items stored on a data carrier." Ex. 1201

1:24-26. Claim 8, for example, recites four rudimentary components of a data access

terminal "*for controlling access to one or more content data items*"—(A) a user *interface*, (B) a

data carrier *interface*, (C) a *program store* storing code implementable by a processor, and

(D) a *processor . . .* for implementing the stored code. The recited code is similarly ele-

mentary, *requesting and receiving* user *identifier data* (D1-D2), *presenting available content data*

items (D3), *receiving a selection* and *transmitting payment* for the data item (D4-D5), *receiving*

payment validation data (D6), and *controlling access* to the data item in response (D7):

> **8.** A data access terminal for controlling access to one or more content
> data items stored on a data carrier, the data access terminal comprising:
>
> [A] a user **interface**;
>
> [B] a data carrier **interface**;
>
> [C] a **program store** storing code **implementable by a processor**; and
>
> [D] a **processor** coupled to the user interface, to the data carrier inter-
> face and to the program store **for implementing the stored code**, the
> code comprising:
>
>> [D1] code to request identifier data identifying one or more content
>> data items stored on the data carrier;
>>
>> [D2] code to receive said identifier data;
>>
>> [D3] code to present to a user via said user interface said identified
>> one or more content data items available from the data carrier;
>>
>> [D4] code to receive a user selection selecting at least one of said one
>> or more of said stored content data items;

[D5] code responsive to said user selection of said selected content

data item to transmit payment data relating to payment for said se-

lected content item for validation by a payment validation system;

[D6] code to receive payment validation data defining if said payment

validation system has validated payment for said content data item;

and [D7] code to control access to said selected content data item re-

sponsive to the payment validation data.

Ex. 1201. But at the patent's earliest claimed priority date, these simple elements and

their combination were well known to any POSA. The patent acknowledges that the

idea of providing access to data in exchange for a payment (*e.g.*, purchase of music on

a CD) was already well known. *E.g.*, Ex. 1201 5:13-16 ("the purchase outright option

may be equivalent to the *purchase of a compact disc (CD)*"). And, as demonstrated herein,

the prior art was teeming with disclosures of this basic concept and its straightforward

implementation in physical systems.

Moreover, claim 8 clearly involves *no "technology" at all* other than "a data access

terminal," with user and data carrier **interfaces**, a **program store** storing code, and a

processor that implements the well-known steps disclosed in the specification—all of

which the patent concedes were well known and commonplace, stating that this "ter-

minal comprises *a general purpose computer.*" *E.g.*, *id.* 4:7, 16:47-52. Claim 8 recites no

more than a system for requesting and retrieving data from a data carrier while receiv-

ing and responding to payment data for validation and controlling access to the data

based on payment. And the other challenged claims are nothing but variations on this

simple theme, with the addition, in the challenged "handheld multimedia terminal"

claims, of equally generic components (*e.g.*, known wireless interface, non-volatile

memory, and a display).[3] *See, e.g.*, *id.* 12:37-40 ("*physical embodiment of the system is not criti-*

cal and *a skilled person will understand that the terminals, data processing systems and the like can*

all take a variety of forms.").

Indeed, as confirmed by the Supreme Court's recent decision in *Alice Corp.*

Pty, Ltd. v. CLS Bank Int'l, 134 S. Ct. 2347 (2014)—decided after Petitioner's original

challenges to the '720 were filed—the challenged claims are also directed to patent in-

eligible subject matter under § 101. As the Board noted in its previous Institution De-

cision, "the '772 patent makes clear that the asserted novelty of the invention is not in

any specific improvement of software or hardware, but in the method of *controlling ac-*

cess to data," CBM2014-00110, Pap. 7, at 13, and the challenged claims are directed to

nothing more than the unpatentable abstract idea of paying for and controlling access

to data, with at most the addition of well-known, routine and conventional features—

in particular, generic computer implementation that cannot confer patentability on

---

[3] Claim 1, *e.g.*, recites a "handheld multimedia terminal," but simply adds to the fea-

tures of claim 8 the requirements of a wireless interface, non-volatile memory, and a

display, while specifying the user interface enables a user to perform certain functions.

And Claim 10, which depends from claim 8, simply specifies integration with a mobile

communications device. Ex. 1201.

these patent-ineligible abstractions. *E.g.*, *Alice*, 134 S. Ct. at 2359-60. Each challenged

claim recites ineligible subject matter and is also obvious; thus, each is unpatentable.

II.   OVERVIEW OF FIELD OF THE CLAIMED INVENTION

By October 25, 1999, electronic sale, distribution, and content protection for

digital products was well-known to a POSA, and their combination as claimed would

also have been well-known or at minimum obvious. *See, e.g.*, Ex. 1219 § V. In March

1991, for example, U.S. Pat. No. 4,999,806 issued, disclosing a system and method for

sale and distribution of digital products (*e.g.,* software) by phone, and for content pro-

tection. *See, e.g.*, Ex. 1206 Abstract ("central station *distributes software by telephone. . . ac-*

cepts credit card information, *transmits an acceptance code . . . After verifying the credit card infor-*

mation, the station calls the purchaser back and *continues with the transaction only after receiving*

the acceptance code."); 1:67-2:9 (describing "means for *selling and distributing protected software*

using standard telephone lines," "*permit[ting] the purchaser to rent the protected software for a period*

of time," and "*to rent the protected software for a specific number of runs*"). Ex. 1206 also dis-

closes (1) different types of access, *e.g.*, purchase vs. rental and (2) a Control Transfer

Program and a Primary Protection Program to prevent unauthorized copies. *See* Ex.

1206 Abstract; 2:65-3:23; Ex. 1219 ¶ 30.

In April 1992, U.S. Patent No. 5,103,392 issued, disclosing use-based charging

for digital products. *See, e.g.*, *id.* Ex. 1211 1:64-2:17:

> The data processing apparatus includes user-specific credit data storage
>
> means for *storing data identifying the user . . . and indicating credit for payment ca-*

> *pacity*, *use time length*, or the like of the user . . . . Also included is use deci-
> sion means for *determining permission to use the program* . . . *on the basis of pro-*
> *gram-specific data* supplied from the program storage means *or user-specific*
> *credit data* supplied from the user-specific credit data storage means, the
> *use decision means delivering either an affirmative or negative signal* corresponding
> to results of the decision. Also included is *program use history storage means*
> connected to the use decision means *for storing program use history data* . . . .

Ex. 1211's emphasis on assuring permission to access a program and compensating

providers underscores this existing focus in the art on digital rights management

("DRM"), over eight years before the claimed priority date. *See, e,g.*, Ex. 1219 ¶ 33.

Also in 1997, Exhibit 1218 ("von Faber") observed that "*[e]lectronic commerce sys-*

tems dealing with the distribution of digital contents . . . *have to couple the use of the provid-*

ed digital goods with a prior payment for the goods in a way which cannot be bypassed," pro-

posing a system where customers purchase keys required to utilize encrypted content.

See, e,g., *id.* at 7("The basic idea . . . is *to distribute the contents in encrypted form, and to have*

the customer pay for the key which he needs to transform the encrypted content in an usable form.");

id. 8 ("The Content Provider provides *digital contents in encrypted form* being distributed

by the Content Distributor. . . . The Authorisation System *permits the distribution of the*

appropriate key after settling of the fees payable by the Customer . . .. The role of the Content

Distributor is not essential for the subsequent discussion but, of course, *for the business*

to take place."); *see also id.* Fig. 1. Von Faber notes its system could be used for a variety

of known distribution and payment methods. *See, e,g.*, *id.* 13 ("*Different methods can be*

used to distribute the encrypted contents (*standard techniques*). . . . *Different electronic payment methods can be integrated . . . .* This *flexibility leads to the fact that totally different authorisation methods can be integrated.*"). Von Faber further addressed the known issue of payment distribution to providers. *See, e.g., id.* ("The system *automatically divides the package price (payments) and guarantees that the money is transferred to each Content Provider.*"); Ex. 1219 ¶¶ 36-38.

Also in 1996 and 1997, two Stefik patents issued, U.S. Patent No. 5,530,235 ("Stefik '235," filed Feb. 16, 1995 and issued June 25, 1996), and U.S. Patent No. 5,629,980 ("Stefik '980," filed Nov. 23, 1994 and issued May 13, 1997). Exs. 1212 and 1213. Stefik '235 discloses "[a] Document Card (DocuCard) for storing documents and which is content revealing. The DocuCard is a transportable unit having a non-volatile storage means for storing information in a digital form, a control processor for processing user initiated functions; an I/O port for interfacing to external devices for reading and writing digital information, and a user interface for allowing a user to directly interact with the DocuCard." Ex. 1212 Abstract. Stefik also discloses a broad-er framework within which the DocuCard is used, including the protection of content with "usage rights." Ex. 1213 Abstract ("A system for controlling use and distribution of digital works. In the present invention, the owner of a digital work attaches usage rights to that work. Usage rights are granted by the 'owner' of a digital work to 'buy-ers' of the digital work . . . [and] define how a digital work may be used and further

distributed by the buyer. Each right has associated with it certain optional specifica-
tions which outline the conditions and fees upon which the right may be exercised.").

Stefik's digital works are stored in a "repository" that processes requests for access—
including for such actions as utilizing content (viewing, executing, or printing) or
transporting content (copying, borrowing, or transferring)—and evaluates the relevant
usage rights to determine whether such access is permitted. *See, e.g.*, *id.* Abstract ("Dig-
ital works are *stored in a repository[, which] will process each request to access* a digital work by
examining the corresponding usage rights . . . Access to digital works for the purposes of transporting
between repositories (*e.g.* copying, borrowing or transfer) is carried out using a digital
work transport protocol. *Access to digital works for the purposes of replay* by a digital work
playback device (*e.g.* printing, displaying or executing) is carried out using a digital
work playback protocol.").

Content storage and utilization on portable devices, including mobile commu-
nication devices such as cellular phones, was also well-known. As one example, Ex.
1216 (pub'd Aug. 26, 1999), discloses a cell phone for storing digital content in non-
volatile memory and accessing that content. *See, e.g.*, Ex. 1216 5 ("Because of its *inte-*
gration into the cellular phone, the digital entertainment module can share components al-
ready present in the cellular phone. Such savings would not be available if a CD player
were simply aggregated with the phone. Further, the use of solid state RAM or ROM,
as opposed to disc storage, eliminates the need for bounce control circuitry[, enabling

the] invention to provide cellular communications and entertainment during leisure activities."); Ex. 1219 ¶ 41. Thus, as these background examples and the additional prior art detailed below in IV.C (including the primary prior art Ginter patent) illustrate, the prior art was rife with awareness and discussion of the same supposed "invention" now memorialized in the challenged claims. Long before the purported priority date, disclosures abounded of the very features that Smartflash now seeks to claim as its exclusive property. As outlined below, the challenged claims are obvious.

III. PETITIONER HAS STANDING

A. The '772 Patent Is a Covered Business Method ("CBM") Patent

The '772 patent is a CBM patent under § 18(d)(1) of the AIA, and Petitioner certifies it is available for review under § 42.304(a). *See also* CBM2014-0010, Pap. 7, 9-14 (finding claim 8 satisfies requirement). Although in fact numerous claims qualify, a patent with even *one* claim covering a CBM is considered a CBM patent. *See* CBM 2012-00001, Doc. 36 at 26; 77 Fed. Reg. 48,709 (Aug. 14, 2012). Petitioner thus addresses exemplary Claim 8 (quoted above).

1. Exemplary Claim 8 Is Financial In Nature

A CBM patent is "a patent that claims a method *or corresponding apparatus for performing data processing or other operations used in the practice, administration, or management of a financial product or service*, except that the term does not include patents for technological inventions." AIA § 18(d)(1); 37 C.F.R. § 42.301. "[T]he definition of covered business method patent was drafted to encompass patents claiming activities that are *finan-*

cial in nature, incidental to a financial activity or complementary to a financial activity.'" 77 Fed.

Reg. 48,734-35 (Aug. 14, 2012) (citing 157 Cong. Rec. S5432 (daily ed. Sept. 8, 2011)).

"[F]inancial product or service" is to be interpreted broadly, *id.*, and *"financial . . . simp-*

ly means relating to monetary matters"—it does not require any link to traditional financial

industries such as banks. *See, e.g.,* CBM2012-00001, Pap. 36 at 23. *See also* CBM2013-

00020, Pap. 14 at 11-12; CBM2013-00017, Pap. 8 at 5-6.

The '772 patent includes claims to a "data access terminal" (*e.g., a* "convention-

al computer" or mobile phone (Ex. 1201 4:7-8)), that reads payment data from a data

carrier (*e.g.,* standard smart card (*id.* 11:35)), transmits it to a validation system for au-

thorizing payment, and allows access to content in exchange for payment (*id.* 8:26-28).

See AIA § 18(d)(1); 37 C.F.R. § 42.301(a). The patent alleges this terminal is part of a

system that allows content owners to make content available without fear of losing

revenue, and claim 8 specifies that the terminal is "for controlling access to one or

more content data items." Ex. 1201 2:15-19; Cl. 8. *See also id.* Fig 12(a)-(e). More gen-

erally, the patent is about "[d]ata storage and access systems [that] enable downloading

and paying for data." *Id.* Abstract. "The combination of payment data and stored

content data . . . helps reduce the risk of unauthorized access." *Id.* And in asserting

the patent, Smartflash conceded the alleged invention relates to a financial activity or

transaction, stating "[t]he patents-in-suit generally cover a portable data carrier for

storing data and managing access to the data *via payment information and/or use status rules.*

The patents-in-suit also generally cover a computer network . . . that serves data and manages access to data by, for example, *validating payment information*." Ex. 1202 ¶ 17.

Indeed, the specification confirms that the recited "data access terminal" is "for storing *and paying for* data," (Ex. 1201 1:20-22), "can *communicate with a bank or other financial services provider to control payment*" (*id.* 3:53-55), and can "*validate payment* with an external authority *such as a bank*" (*id.* 2:8-10). Further, "*[p]ayment for the data item* or items requested *may either be made directly to the system owner or may be made to an e-payment system*" (*id.* 20:59-61), and such systems may be provided "according to, for example, *MONDEX, Proton, and/or Visa cash compliant standards*" and "*payment authentication . . . may [] be performed by, for example, a *data access terminal* . . . using *payment management code*." *Id.* 13:43-64. *See also id.* 7:66-8:61 (esp. 8:26-28); 11:65-12:4; Fig. 12(a)-(e).

Claim 8 expressly recites software to perform data processing and other operations in connection with the recited "payment validation system" (*e.g.*, "to transmit payment data . . . for validation by a payment validation system" and "code to receive payment validation data defining if said payment validation system has validated payment"), and further requires software "to control access to said selected content data item responsive to the payment validation data." *Id.* Thus, claim 8, which explicitly describes transmitting payment data to a payment validation system, receiving payment validation, and controlling access to data based on payment, clearly concerns a computer system (corresponding to methods discussed in the patent) for performing

data processing and other operations used in the *practice, administration, or management of a financial activity and service. See, e.g.*, CBM2013-00020, Pap. 14 at 10-11.

2.   Claim 8 Does Not Cover A Technological Invention

Further, claim 8 does *not* cover a "technological invention" within the exception in AIA § 18(d)(1), because it does not claim "subject matter as a whole [that] recites *a technological feature that is novel and unobvious over the prior art[] and solves a technical problem using a technical solution*." § 42.301(b). To the contrary, the specification explains that claim 8's "data access terminal" was commonplace, and is not directed to a technical problem, but rather offers a *non-technical solution* to the *business problem of data piracy*.

(a)   Claim 8 Does Not Recite A Technological Feature That Is Novel and Unobvious

First, no "technological feature" of claim 8 is novel and unobvious. The PTAB has confirmed that "[m]ere recitation of known technologies, such as computer hardware, communication or computer networks, software, memory, computer-readable storage medium, scanners, display devices or databases, or specialized machines, such as an ATM or point of sale device," or "[r]eciting the use of known prior art technology to accomplish a process or method, even if that process or method is novel and non-obvious" will "not typically render a patent a technological invention." *See, e.g.*, 77 Fed. Reg. 48,764 (Aug. 14, 2012). As the PTAB further stated, "combining prior art structures to achieve a normal, expected, or predictable result of that combination" is not a technological invention. 77 Fed. Reg. 157 (Aug. 14, 2012) at 48,764.

As its language makes clear, claim 8 involves *no "technology" at all* other than "a data access terminal," which includes a user interface, data carrier interface, a program store storing code, and a processor that implements the well-known steps disclosed in the specification. Ex. 1201. "The data access terminal may be a *conventional computer* or, alternatively, it may be a *mobile phone*," both of which were known in the art well before the earliest claimed priority date. *Id.* 4:7; 16:47-52. Indeed, the specification *disclaims* the use of particular hardware, relying instead on conventional hardware known to a POSA: "[t]he *physical embodiment of the system is not critical* and a skilled person will understand that *the terminals, data processing systems and the like can all take a variety of forms.*" *Id.* 12:37-40.

The use of software (code) for requesting and presenting data, transmitting and validating payment data, and exchanging content for payment, as disclosed in the specification, was also exceedingly well known in the art, and could not transform the claims into a technological invention. *See, e.g.*, 77 Fed. Reg. 48,756 48,764 (Aug. 14, 2012) ("[m]ere recitation of known technologies, such as . . . software, memory, computer-readable storage medium . . . [will] not typically render a patent a technological invention."); Ex. 1219 § V, ¶¶ 79-87. The functions performed by the code (D1-D4)—related to the identification, access, and control of data as disclosed in the specification—were commonplace before the earliest claimed priority date. *See, e.g.*, Ex. 1206 8:62-9:12; Ex. 1201 1:40-50. Further, the financial transaction performed by the

code described in elements D5 and D6 was well known, because, as the patent concedes, e-payment systems were known. Ex. 1201 13:43-64 ("*E-payment systems coupled to banks . . .* these provide an *e-payment system according to, for example, MONDEX, Proton, and/or Visa cash compliant standards . . . payment data may be validated by a data access terminal using payment management code.*"). Using code to implement this transaction, as disclosed in the specification, was obvious and known. *E.g.,* Ex. 1219 §V, ¶¶ 79-87. Providing access to data in exchange for a payment (D7), as claimed in the patent, was also well known. *See, e.g.,* Exs. 1207; 1206 Abstract, 1:67-2:9; 1208 Abstract, 4:27-35; 1219 §V, ¶¶ 75-77; Sec. IV.C.5, *infra.*

The state of the art at the time, and the detailed prior art analysis below, further reflects claim 8 does not recite a technological feature that is novel and nonobvious. *See, e.g.,* Section II, *supra*; Section IV.C, *infra.* Even apart from other failures to trigger the exception, for these reasons alone, claim 8 is not a technological invention.

(b) Claim 8 Does Not Solve A Technical Problem Using A Technical Solution

Moreover, claim 8 does not solve a technical problem using a technical solution because *there was no technical problem to begin with.* While a POSA certainly would have known how to sell data over the Internet, *see, e.g.,* Ex. 1215 Fig. 7; 1:50-55; 10:41-53; Ex. 1219 § V, the patent nonetheless describes the "problem" it is intended to solve as the *business problem* of *data piracy*: users were downloading content (such as MP3s) without paying, and content providers were losing money. Ex. 1201 1:29-33, 47-55.

The solution described in claim 8—using previously-known downloading technology, and combining previously-known data access and previously-known data payment abilities—was also not "technical." As the patent states, "*[b]inding the data access and payment together* allows the legitimate owners of the data to make the data available themselves over the internet *without fear or loss of revenue, thus undermining the position of data pirates.*" Ex. 1201 2:14-19; *see also id.* 4:36-38. But the basic notion of coupling data access to payment, as claimed, is not a "technical" solution under § 42.301(b).[4] The specification further explains this idea of linking payment with access is the crux of the patent: "[b]y combining digital rights management with content data storage using a single carrier, the stored content data becomes mobile and can be accessed anywhere while retaining control over the stored data for the data content provider or data copyright owner." Ex. 1201 5:33-37.

Further, even if the *solution* were somehow deemed "technical" (it is not), it would not alter that there was *no technical problem* presented and addressed by the patent. As the PTAB stated in CBM 2012-00007, "[d]ifficulty implementing an automated or technical solution *to a problem that is not technical* does not transform that non-technical problem into a technical one." Pap. 16 at 17.

In sum, the "invention" of claim 8 concerns no more than the non-technical

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[4] Moreover, the idea of providing access to data in exchange for a payment was itself known. *See, e.g.*, Ex. 1207; Ex. 1206 Abstract, 1:67-2:9; Ex. 1208 Abstract, 4:27-35.

idea of restricting access to content based on payment to solve the business problem

of data piracy. For this reason, too, claim 7 does not claim a technological invention.

B.   Related Matters and Mandatory Notice Information; Petitioner Is a Real Party In Interest Sued for and Charged With Infringement

Petitioner Apple is the real party-in-interest. Smartflash's Case No. 6:13-cv-447,

Smartflash LLC. et al. v. Apple Inc. et al., pending in E.D. Texas, asserts the '772 patent

against Petitioner. Pursuant to Rule 42.8(b)(2), the patent is also the subject of a sec-

ond litigation, *Smartflash LLC et al. v. Samsung et al.*, No.6:13-cv-448 (E.D. Tex), to

which Apple is not a party. Petitioner identifies the following administrative matters,

including patents to which the '772 claims priority: App'n No. 10/111,716 (filed as

No. PCT/GB00/4110); U.S. Patent Nos. 7,334,720, 7,942,317, 8,033,458, 8,061,598,

and 8,118,221. [5] Petitioner previously filed two CBM petitions on this patent,

CBM2014-00110/111, on §§102 and 103 grounds. Those petitions were not instituted.

CBM2014-00110/111, Pap. 8. Petitioner previously filed CBM petitions on the fol-

lowing related patents: 8,118,221; 7,334,720; 8,033,458; 8,061,598; 7,942,317

(CBM2014-00102/103/104/105/106/107/108/109/112/113). The following peti-

tions were instituted: CBM2014-00102/103/106-109/112/113. More recently, peti-

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[5] Petitioner has contemporaneously filed two additional CBM Petitions seeking review

of this patent. Samsung Electronics America filed CBM petitions on this (CBM2014-

00200/204) and related Patent Nos. 8,033,458, 8,061,598; 8,118,221, 7,334,720

(CBM2014-00192/197/193/198/194/199/190/196).

tioner filed additional CBM petitions on those patents: CBM2015-00015/16/17/18/28/29. Lead and backup counsel, and service information are designated in the signature block.

IV. DETAILED EXPLANATION OF REASONS FOR RELIEF REQUESTED, SHOWING IT IS MORE LIKELY THAN NOT THAT AT LEAST ONE CHALLENGED CLAIM IS UNPATENTABLE

Pursuant to §§ 42.22, 42.208, and 42.304(b), a full statement of the reasons for the relief requested, including a detailed explanation of the evidence and governing law, rules and precedent is provided below. IV.A explains the bases for Petitioner's relevant claim constructions. IV.B and IV.C provide a detailed explanation why it is more likely than not that each challenged claim is unpatentable under §§101 and 103, respectively. In particular, claims 1, 5, 8, and 10 are not drawn to patentable subject matter under 35 U.S.C. § 101 *(Ground 1)*, obvious in light of Ginter in view of Subler and Poggio *(Ground 2)*, and obvious in light of Ginter in view of Subler, Poggio, and Sato *(Ground 3)*.

Lest Patent Owner argue, as suggested in a recent call with the Board regarding related CBM challenges (*e.g.*, CBM2014-00015), that the Board should deny review under § 325(d) without regard to this petition's merits in light of several recent decisions of the Board concerning IPRs–which are limited by statute in ways that CBMs are not, *see, e.g.,* § 315(b) (barring IPRs after 1 year from service of infringement complaint except in the case of joinder of another petition); *compare* §315(e)(2) (IPR litigation estoppel for arguments "petitioner raised *or reasonably could have raised*"), *with* AIA §

18(a)(1)(D) (CBM litigation estoppel only for arguments "petitioner *raised*")–Petitioner

notes that this Petition does *not* raise substantially the same arguments or prior art as

the original petitions. This petition, *e.g.*, raises § 101 arguments relying on the *Alice*

decision post-dating the original petitions,[6] which raised *no § 101 arguments*, and pre-

sents new prior art with *explicit disclosure of limitations the Board found absent from the previ-*

ously-cited art. See, e.g., CBM2013-00009, Pap. 10 at 20-21 (rejecting argument under §

325(d) that cited art was "substantially the same" as art previously before PTO where

"recognition" of principle in newly-cited reference was "not expressed so clearly in

[earlier considered] references"). Further, as such IPR-related decisions have under-

scored, the Board exercises its § 325(d) discretion on a "case-by-case basis" based on

the "specific facts," and Petitioner respectfully submits both that the demonstration

herein of the unpatentability of actively-litigated claims that should never have issued

is a worthwhile subject for the Board's consideration, *e.g.*, *Ultramercial*, 2014 WL

5904902, at *9 (Mayer, J., concurring) (public "protect[ed]" by "weeding out" invalid

patents), and that the facts here are distinguishable from those in *Unilever* and *Conop-*

co. Cf., e.g., IPR2014-00506 ("*Unilever*"), Pap. 17 at 2, 7(exercising discretion to deny

institution "[b]ased on the specific facts presented," including, *e.g.*, "unsuccessful Re-

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[6] *See, e.g.*, *Ultramercial, Inc. v. Hulu, LLC*, -- F.3d --, No. 2010-1544, 2014 WL 5904902,

at *2 (Fed. Cir. Nov. 14, 2014) (holding patent ineligible under § 101 based on princi-

ples "made clear" in *Alice* after having previously held patent eligible under §101).

quest for Rehearing," substituting the *same argument* of newly-cited art "in lieu of" orig-

inally-argued art, and *"essentially . . . identical" claim charts not referring to a newly-cited refer-*

ence); IPR2014-00628 ("*Conopco*"), Pap. 21 at 10, 2 (exercising discretion on "case-by-

case basis" to deny institution "based on the particular circumstances," including, *e.g.*,

advancement of *"substantially the same argument"* that "'[t]he Board should assume that

the cited references meet the claimed . . . limitations, even though they provide no

disclosure of particular materials that actually meet' the . . . limitations recited," and

reliance on art "listed on the face of the [challenged] patent [and] therefore, *'previous-*

ly . . . presented to the Office'").

A.   Claim Construction

Pursuant to § 42.300(b), and solely for purposes of this review, Petitioner con-

strues the claims such that terms are given their broadest reasonable interpretation

("BRI"). For terms not specifically construed below, and in the absence, to date, of

detailed arguments from Smartflash indicating a particular need for construction un-

der the standard applicable here, Petitioner interprets them for this review in accord-

ance with their plain and ordinary meaning under the required BRI consistent with the

specification. Because the claim construction standard at the PTO is different than

that used in litigation, *see In re Am. Acad. of Sci. Tech Ctr.,* 367 F.3d 1359, 1364, 1369

(Fed. Cir. 2004); MPEP § 2111, Petitioner reserves the right to argue in litigation a dif-

ferent construction for any term, as appropriate to that proceeding. Accordingly, Peti-

tioner proposes the following constructions relevant to this proceeding:

-**"payment data"** (Cls. 1, 5, 8, 10)—For review purposes, this term is construed to mean "data representing payment made for requested content data" and is distinct from "access control data." *See, e.g.*, Ex. 1201 Abstract, 5:37-42, 6:54-57, 6:64-7:1, 7:61-64, 8:35-38, 9:9-11, 10:12-15, 10:32-36, 10:45-47, 14:52-56, 17:58-62, 21:4-8, 23:35-40.

-**"supplementary data"** (Cl. 5)—For review purposes, this term is construed to mean "advertising data, customer reward management data, and/or hot links to web sites." *See, e.g.*, Ex. 1201 Abstract, 5:53-60, 24:64-25-2.[7]

These terms are the only terms from the challenged claims that, in the litigation, patentee asserts requires any construction, let alone a narrowing one. Although Peti-

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[7] If "supplementary data" is construed to be broader than Petitioner's proposed construction herein, then the term is indefinite because a POSA would not understand the scope of the claim when read in light of the specification. *Solomon v. Kimberly-Clark Corp.*, 216 F.3d 1372, 1378 (Fed. Cir. 2000). The definiteness requirement asks whether the claims, as interpreted in view of the written description by a POSA, adequately notify the public of the scope of the patentee's right to exclude. *Amgen, Inc. v. Chugai Pharm. Co.*, 927 F.2d 1200, 1217 (Fed. Cir. 1991). The specification does not clarify what else, if anything, "supplementary data" would include other than hot links to web sites, advertising data, and customer reward management data.

tioner believes construction of other terms will be relevant to its district court defenses (including at least noninfringement), Petitioner does not believe that construction of other terms will be relevant to the patentability challenges here, for two reasons.

First, the prior art Petitioner relies upon falls indisputably within the scope of the challenged claims, even though Petitioner's litigation defenses will likely trigger disputes regarding the outer perimeters of such claims. For example, Petitioner proposed a construction in the district court that required a "data carrier" to, *inter alia*, be limited to a memory "card," but such construction is not relevant here because the prior art cited herein discloses memory "cards," which are indisputably within the scope of the term "data carrier." *See, e.g.*, Ex. 1201 Fig. 2, 4:36-38, 6:13-19, 10:66, 11:51-55, 14:6-8, 18:44-46, 22:33-35. *Second*, as Patentee seeks no construction *in litigation*, let alone a narrowing one, of any term other than "payment data," Patentee should not be heard to contend here that under the **broader** BRI standard, a **narrowing** construction is required for other terms. If Patentee argues construction of additional terms, those questions of law can be addressed then.

Petitioner has also argued in court that certain elements are "means-plus-function" under 35 U.S.C. §112(f). Petitioner has argued, *e.g.*, that claims reciting a "*processor ⬚ for implementing ⬚ code ⬚ comprising code to [perform a function]*" use functional language without providing sufficient structure and should therefore be governed by §112(f). *See Noah Sys. Inc. v. Intuit Inc.*, 675 F.3d 1302, 1318 (Fed. Cir. 2012) (algorithm

requirement is necessary "[b]ecause general purpose computers can be programmed to perform very different tasks in very different ways" (quoting *Aristocrat Techs. Austrl. PTY Ltd. v. Int'l Game Tech.*, 521 F.3d 1328, 1333 (Fed. Cir. 2008)); the Federal Circuit "imposed the algorithm requirement to prevent purely functional claiming when a patentee employs a special purpose computer-implemented means-plus-function limitation."). However, Petitioner does not propose a "means-plus-function" construction of these terms under BRI because (1) these terms do not contain the phrase "means for," and the PTO has indicated that, while "giv[ing] claims their broadest reasonable interpretation, in light of and consistent with the written description of the invention in the application," it applies a "strong presumption" that they are not "means-plus-function" (*see, e.g.*, MPEP § 2818(I));[8] and (2) even under the narrower claim construction standard applicable in district court, Patentee itself argues these are not "means-plus-function" elements. Moreover, even if these were construed under BRI to be "means-plus-function" elements limited to specifically disclosed algorithms within the patent specification, the cited art (and claim charts herein) discloses structures or equivalents that would render unpatentable the challenged claims.

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[8] In addition, while construction at the Board is based on BRI in light of the specification, district courts may rely on extrinsic evidence (*e.g.*, dictionaries, treatises, expert testimony, etc.) to find a given term is a "nonce" word synonymous with "means."

B.   The Challenged Claims Are Unpatentable Under 35 U.S.C. § 101

The challenged claims are unpatentable under § 101 because they are directed to ineligible subject matter—in particular, the abstract idea of paying for and/or controlling access to content. A patent is unpatentable under § 101 if it attempts to claim laws of nature, natural phenomena, or abstract ideas. *See, e.g.*, *Mayo Collaborative Servs. v. Prometheus Labs*, 132 S. Ct. 1289, 1293 (2012); *Bilski v. Kappos*, 130 S. Ct. 3218, 3225 (2010); *Alice*, 134 S. Ct. at 2354. In its recent decision in *Alice*, *id.* at 2355, the Supreme Court applied *Mayo*'s two-part framework to "distinguish[] patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of these concepts." The first step is to determine whether a claim is directed to one of these ineligible categories, and the second to determine whether additional elements transform the claims such that the combination is "sufficient to ensure that the patent in practice amounts to *significantly more* than a patent upon the [ineligible concept] itself.'" *Id.* (quoting 132 S. Ct. at 1294). Merely adding "well-understood, routine, conventional activity previously engaged in" by those in the field is *not* sufficient in normal circumstances. *E.g.*, *Mayo*, 132 S.Ct. at 1297-98. Thus, for example, "[s]imply implementing a mathematical principle on a physical machine, namely a computer, [is] not a patentable application of that principle." *Id.* at 1301 (citations omitted); *Gottschalk v. Benson*, 409 U.S. 63, 73 (1972) ("storing [in a] shift register" was unpatentable abstract idea). Applying this two-step test makes clear, as a matter of law, that the challenged claims are directed to subject matter *outside* the

scope of § 101 – they are precisely the type of claims the Supreme Court, Federal Circuit, and district courts have repeatedly found to be ineligible for patenting.

1. Claims Are Directed To Abstract Ideas

The "*abstract ideas*" category of ineligible subject matter is grounded in the "longstanding rule that *an idea of itself is not patentable.*" *Alice*, 134 S.Ct. at 2355. Abstract ideas include "fundamental economic practice[s] long prevalent in our system of commerce," "building block[s] of the modern economy," and other "method[s] of organizing human activity." *E.g.*, *Bilski v. Kappos*, 130 S. Ct. 3218, 3231 (2010); *Alice*, 134 S. Ct. at 2356. Accordingly, the Supreme Court has found concepts such as intermediated settlement, protecting against risk, and monitoring operating conditions for "alarm limits" to be examples of *patent ineligible* abstract ideas. *Alice*, 134 S. Ct. at 2355-57; *Bilski*, 130 S. Ct. at 3225-31; *Parker v. Flook*, 98 S. Ct. 2522, 2525-29 (1978). Claims to "long-familiar commercial transactions" and relationships (*i.e.*, business methods), no matter how "narrow" or "particular," are directed to abstract ideas *as a matter of law. buySAFE Inc. v. Google, Inc.*, 765 F.3d 1350, 1353-54 (Fed. Cir. 2014); *U.S. Bancorp. v. Ret. Capital Access Mgmt.*, CBM2013-00014, Pap. 33 (Final Written Decision, Aug. 22, 2014) at 13 ("the concept of *advancing funds based on future retirement payments* is an economic practice long prevalent in our system of commerce and squarely within the realm of abstract ideas"); *SAP America, Inc. v. Arunachalam*, CBM2013-00013, Pap. 61 (Final Written Decision, Sept. 18, 2014) at 16 (invalidating claim reciting "an

abstract method, *i.e.*, performing a *real-time Web transaction by displaying* and *providing at least one application a user selects to access checking and savings accounts*, and *transferring funds (i.e., debiting or crediting) in response to user signals from an input device*"). Further, even "the addition of merely novel or non-routine components to the claimed idea" does not "necessarily turn[] an abstraction into something concrete." *Ultramercial*, 2014 WL 5904902, at *4 (invalidating claims directed to the abstract idea of "using advertising as an exchange or currency" for media content on the Internet). Here, there have been no such novel or non-routine additions.

Here, each challenged claim is drawn on its face to the concepts of payment and controlling access to something. Indeed, as the Board concluded previously, "the '772 patent makes clear that the asserted novelty of the invention is not in any specific improvement of software or hardware, but in the *method of controlling access to data*." CBM2014-00110, Pap. 7, at 13. Device claims 1, 5, 8, and 10 are drawn to the concepts of payment and controlling access and recite "code to" request identifier data, receive identifier data, present content, receive a selection of content, respond to selection of content and transmit payment data, receive payment validation data, and control access to the content. Indeed, every challenged claim expressly recites "payment data" and "control[ling] access"; the '772's abstract describes "paying" and "controlling access" (Ex. 1201 Abstract); and the specification states that the "invention" relates to "paying" and "providing access" (*id.* 1:25-26). There can be no

dispute that these concepts are at the heart of the challenged claims.

But those concepts—payment and controlling access—are even older and more commonplace than those found ineligible in *Alice*, *Bilksi*, and *Flook*. The concept of payment is a "fundamental economic practice" that was "prevalent in our system of commerce" long before the concept of "intermediated settlement" that the Supreme Court found to be "squarely within the realm of abstract ideas." *See Alice*, 134 S. Ct. at 2356-57. And the concept of controlling access based on payment (*e.g.*, monthly access to an apartment based on the payment of rent, a two-day movie rental from Blockbuster, etc.) or based on some other criteria (*e.g.*, access to liquor based on proof of age, access to an airport based on proof of identity and compliance with security rules, etc.) is a similarly well-known "building block of the modern economy" and a longstanding "method of organizing human activity" long pre-dating the '772 Patent. *See Alice*, 134 S. Ct. at 2356-57; *e.g.*, Ex. 1219 ¶¶ 75-77; Ex. 1208 4:27-35; Ex. 1225 Abstract; Ex. 1216 Abstract, Fig. 1. And, even if the '772 Patent's use of well-known concepts had been new, that addition would not transform the challenged claims into patentable subject matter. *See, e.g.*, *Ultramercial*, 2014 WL 5904902, at *4.

It is thus indisputable that the concepts of payment and controlling access are abstract ideas that fall outside the scope of § 101, and, as a matter of law, the first step of the patent ineligibility test is met by the challenged claims. *buySAFE*, 765 F.3d at 1353-54; *Ultramercial*, 2014 WL 5904902, at *4-5 (claim with steps of "restricting

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public access to . . . media" and "allowing the consumer access to the media" if conditions are met "recites an abstraction"); *see also DealerTrack, Inc. v. Huber et al.*, 674 F.3d 1315, 1333 (Fed. Cir. 2012).

2. Claims Do Not Disclose An "Inventive Concept" That Is "Significantly More" Than An Abstract Idea

Because the challenged claims are drawn to abstract ideas, the "additional features" recited in those claims must be analyzed to determine whether they add an "inventive concept" that is "significantly more" than the claimed ideas. *Alice*, 134 S. Ct. at 2355. But the "additional features" recited in the challenged claims do not. Instead, they fall into two categories—field of use limitations and generic computer implementations—repeatedly found insufficient to bring a patent claim within § 101 eligibility. *E.g.*, *id.* at 2358-60. Because the challenged claims are directed only to an abstract idea with nothing more than "well-understood, routine, conventional activity" added (*Mayo*, 132 S. Ct. at 1294) they are unpatentable.

3. Field Of Use Limitations Cannot Create Patent Eligibility

The prohibition against patenting abstract ideas cannot be circumvented by limiting claims to a "particular technological environment" or "single field of use." *Bilski*, 130 S. Ct. at 3230. The idea of "hedging," for example, does not become patentable when "applied to commodities in the energy market," and the idea of "automatic monitoring/alarming" does not become patentable when limited to "a catalytic conversion process." *Bilski*, 130 S. Ct. at 3230-31; *Flook*, 98 S. Ct. at 2523,

2528-29; *see also Ultramercial*, 2014 WL 5904902, at *5 ("Narrowing abstract idea of

using advertising as a currency to the Internet…is insufficient to save a claim.").

Here, the challenged claims purport to limit the idea of payment to payment

for retrieving "data" and the idea of controlling access to content based on "payment

data." But these ideas of "payment" and "controlling access" remain patent *ineligible*

even when applied to content (or to the examples of a video, song, or game, Ex. 1201

1:12-14). *E.g.*, *Bilski*, 130 S. Ct. at 3230-31; *Flook*, 98 S. Ct. at 2528-29; *see also, e.g.*, Ex.

1219 ¶ 78.

4. Generic Computer Implementation Cannot Transform Abstract Ideas Into Patent Eligible Inventions

Whether viewed separately or as an ordered combination, the challenged claims

simply recite the concepts of paying for and/or controlling access to data "as

performed by a generic computer," without disclosing any "novel or unusual"

improvement to "the functioning of the computer itself" or any "advance in

computer technology that makes the performance of [routine] functions more

effective." *Alice*, 134 S. Ct. at 2358-60. As such, the claims do not supply an "inventive

concept in the physical realm of things and acts"—*i.e.*, a technological innovation.

Alice, 134 S. Ct. at 2359-60; *buySAFE*, 765 F.3d at 1353. The claims are thus

unpatentable. *E.g.*, *Alice*, 134 S. Ct. at 2359-60; *buySAFE*, 765 F.3d at 1354-55.

Indeed, "recitation of a generic computer *cannot* transform a patent-ineligible abstract

idea into a patent-eligible invention." *Alice*, 134 S. Ct. at 2358. "Given the ubiquity of

computers . . . wholly generic computer implementation is not generally the sort of 'additional feature' that provides any 'practical assurance that the process is more than a drafting effort designed to monopolize the abstract idea itself'" "[s]tating an abstract idea while adding the words 'apply it with a computer'" is not patent-eligible subject matter. *Id.* at 2358. But that is all the challenged claims do.

The challenged claims simply instruct that the abstract ideas of payment for controlling access to data should be implemented in software and refer only to generic computer functions, such as requesting, receiving, retrieving, selecting, accessing, transmitting, outputting, displaying, identifying, storing. *See also, e.g.*, Ex. 1219 ¶¶ 79-87. "[A]ll of these computer functions are well-understood, routine, conventional activities previously known in the industry." *Alice*, 134 S. Ct. at 2359; *Mayo*, 132 S. Ct. at 1294; *see also buySAFE*, 765 F.3d at 1355 ("*sending*" and "*receiving*" data over a network "is *not even arguably inventive*"; affirming invalidity under § 101); *SAP Am., Inc. v. Versata Dev. Grp., Inc.*, CBM2012-00001, Pap. 70 at 30 (June 11, 2013) (directed to an abstract idea must recite more than "generic general purpose computer hardware (processor, memory, storage)" to satisfy § 101).

As a matter of law, such "generic computer functions" are not "enough" to "transform" an "abstract idea into a patentable invention." *Alice*, 134 S. Ct. at 2359; *buySAFE*, 765 F.3d at 1355; *Planet Bingo, LLC v. VKGS, LLC*, 576 F. App'x 1005 (Fed. Cir. 2014) (holding computerized system unpatentable because the nature of the

function performed by the computer at each step is "purely conventional"). Indeed, more complex computer operations than those at issue here—including "creat[ing] electronic records," "track[ing] multiple transactions," "issu[ing] simultaneous instructions," and "selectively forwarding [] credit application data"—have been found sufficiently "mundane" that they cannot bring a patent claim within the scope of § 101. *Alice*, 134 S. Ct. at 2350, 2359; *DealerTrack*, 674 F.3d at 1331-34; *see also Ultramercial*, 2014 WL 5904902, at *4-5 (routine, conventional activities, such as "*selecting an ad*," "*restricting public access*," "*facilitating display*," "*allowing the consumer access*," "*updating the activity log*," and "*receiving payment*," add no inventive concept; "that the system is active . . . and restricts public access also represents only insignificant pre-solution activity") (internal quotations omitted); *Bancorp Servs., L.L.C. v. Sun Life Assurance Co. of Canada*, 687 F.3d 1266, 1279 ("Using a computer to accelerate an ineligible mental process does not make that process patent-eligible."); *Walker Digital, LLC v. Google, Inc.*, No. 1:11-cv-00318-LPS, 2014 WL 4365245, at *6 (D. Del. Sept. 3, 2014) ("Even accepting that the use of a computer increases speed and efficiency of performing the steps of the claims, and improves the likelihood of preserving the anonymity of the [] parties, these characteristics do not save the claims."). Moreover, even if "some of the…steps were not previously employed in this art [that would] not [be] enough—standing alone—to confer patent eligibility upon the claims at issue." *Ultramercial*, 2014 WL 5904902, at *5.

Similarly, the generic components recited in the challenged claims—such as "data carrier" (under its BRI[9]), "memory," "program store," "processor," "code," "interface," and "display"—are "purely functional and generic." *See Alice*, 134 S. Ct. at 2360; *see also, e.g.*, Ex. 1219 ¶¶ 79-87. Because these components are well-known features of a general purpose computer, *these limitations cannot transform the challenged claims into patent eligible subject matter.*[10] *See id.* As a matter of law, a "handful of generic computer components" configured to implement an abstract idea is not patentable. *Id.*; *see also SmartGene, Inc. v. Adv. Biological Labs.*, 555 F. App'x 950, 955 (Fed. Cir. 2014) ("The claim *does not purport to identify new computer hardware*: It *assumes the availability of physical components for input, memory, look-up, comparison, and output.*").

Indeed, in this way, the challenged here are analogous to those invalidated in *Alice*. In *Alice*, the Court looked at the difference between the claimed abstract idea

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[9] As noted above in section IV.A, although Petitioner believes a narrower definition should apply in litigation, Patent Owner took the position in district court that "data carrier" requires no construction even under the narrower standard applicable there, and obtained a broad construction in court construing the term to mean *any "medium capable of storing information."* Ex. 1223 at 22.

[10] A "data processing system," a "communications controller," a "device coupled to said communications controller," and a "data storage unit" are the types of "*generic computer components*" insufficient to bring a claim within § 101. *Alice*, 134 S. Ct. at 2360.

and claimed subject matter and found, *e.g.*, a "data processing system" comprising a "communications controller," a "first party device coupled to said communications controller," a "data storage unit having stored therein" two specific types of data, and a "computer, coupled to said data storage unit and said communications controller" that was "configured to," among other things, "receive" data from certain hardware, "electronically adjust" data after "ensuring" certain rules are satisfied, and "generating an instruction" for further action based on the data received. Ex. 1226, cl. 26. Similarly here, the difference between the claimed abstract idea and the claimed subject matter consists of, *e.g.*, a "data access terminal for controlling access" to "items stored on a data carrier," that "request[s]," receiv[es]," "transmit[s]," "select[s]." Ex. 1201, cl. 8.

Any purported hardware in both is "*purely functional and generic.*" *Alice*, 134 S. Ct. at 2360. *See* Ex. 1219 ¶¶ 79-87. And the functions performed by such hardware in both cases are "*the most basic functions of a computer.*" *Id.* at 2359. Reciting a "handful of generic computer components configured to" implement an abstract idea using "well-understood, routine, conventional" computer functions "is *not 'enough' to transform an abstract idea into a patent-eligible invention.*" *Id.* And these additional recitations add to the claims' abstract ideas nothing more than "well-understood, routine, conventional activity," *see Mayo*, 132 S. Ct. at 1294. Ex. 1219 ¶¶ 79-87. Just like the claims at issue in *Alice*, the challenged claims are unpatentable.

5.   Functional Nature Confirms Preemption and Ineligibility

The inquiry into "preemption" concerns in the patent eligibility context is a *relative* one—whether claims have the potential to foreclose future innovation disproportionately *"relative to the contribution of the inventor." Mayo*, 132 S. Ct. at 1303; *I/P Engine, Inc. v. AOL Inc.*, 576 F. App'x 982, 994 (Fed. Cir. 2014) (concurring) (noting that, "[i]n assessing patent eligibility, 'the underlying functional concern is a relative one: *how much future innovation is foreclosed relative to the contribution of the inventor*'") (quoting *Mayo*, 132 S. Ct. at 1303); *see also Walker Digital*, 2014 WL 4365245, at *3 n.2 ("the inquiry on preemption is not whether patents directed at building blocks of human ingenuity would preempt an <u>entire</u> field but, instead, whether such patents would risk <u>disproportionately</u> tying up the use of the underlying ideas.") (emphasis in original). Here, challenged claims' broad functional nature firmly triggers preemption concerns. Indeed, the "code to" functional claiming at the heart of the challenged claims epitomizes "preemption" in the software context. *See I/P Engine*, 576 F. App'x at 994 ("[t]he need for specificity sufficient to cabin the scope of an invention is *particularly acute in the software arena*, where claims tend to be exceedingly broad . . . and innovation often occurs despite the availability of patent protection rather than because of it"). Just like the software claims recently found invalid in *Alice,* here "the function performed by the computer at each step of the process is '[p]urely conventional.'" *Alice*, 134 S. Ct., at 2359 (internal citation omitted). In this case, all that is disclosed is the ultimate objective—software to implement the steps of paying for and/or

accessing content— and this is exactly the type of functional claiming the Courts find has the potential to foreclose future innovation disproportionately *"relative to the contribution of the inventor."*[11] *Mayo*, 132 S. Ct. at 1303; *see I/P Engine*, 576 F. App'x at 994-95. *See also Walker Digital*, 2014 WL 4365245, at *6 ("To allow the claim to survive would *disproportionately risk preempting* a building block of human interaction, *retarding rather than promoting progress*, contrary to the very purpose patents are granted.")

6.   Machine-or-Transformation Test Also Confirms Patent Ineligibility

Finally, to the extent it remains "an important and useful clue" for determining whether an invention is patent-eligible, *Bilski*, 130 S. Ct. at 3226, the challenged claims

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[11] Lest Smartflash suggest that its claims cannot be invalid under § 101 unless they wholly preempt *all* forms of "providing or controlling access to content," this is an invitation to error: the Supreme Court has explicitly rejected preemption of "an entire field" as the test for eligibility. *E.g.*, *Alice*, 134 S. Ct. at 2358 (noting Court had already "rejected the argument that implementing a principle in some specific fashion will automatically fall within the patentable subject matter of Section 101"); *Bilski*, 130 S. Ct. at 3231 (limiting abstract idea to "one field of use or adding token postsolution components" did not make it patentable). The proper, relative "preemption" inquiry is clearly satisfied here, where the subject matter of the claims simply recites "code to" perform certain abstract objectives on generic computers—a "[p]urely conventional" manner of achieving those objectives. *E.g.*, *Alice*, 134 S. Ct. at 2359.

fail the machine or transformation test as well. A general purpose computer fails to qualify as a "particular machine" under the machine prong. *DealerTrack*, 674 F.3d at 1332-34; *see also* Ex. 1219 ¶¶ 88-92, and none of the challenged claims transforms any article into a different state or thing under the transformation prong: from the face of the challenged claims, it is apparent that content data, payment data, and other data are merely requested, received, retrieved, selected, accessed, transmitted, output, displayed, identified, and/or stored—not altered. *Bilski*, 130 S. Ct. at 3226; *Ultramercial*, 2014 WL 5904902, at *6 (holding that claims directed to "the grant of permission and viewing of advertisement by the consumer, the grant of access by the content provider, and the exchange of money between the sponsor and the content provider" fail to satisfy transformation prong). *See also* Ex. 1219 ¶¶ 93-95. Thus, every possible legally viable analysis confirms their failure under § 101.

C. The Challenged Claims Are Invalid Under § 103

1. Overview of Ginter

U.S. Patent No. 5,915,019 ("Ginter," filed Jan. 8, 1997) issued on June 22, 1999. *See* Ex. 1214. Ginter discloses "systems and methods for secure transaction management and electronic rights protection." *Id.* Abstract. Ginter describes a "virtual distribution environment" (abbreviated "VDE") to "control and/or meter or otherwise monitor use of electronically stored or disseminated information." *Id.* Ginter's system "help[s] to ensure that information is *accessed and used only in authorized ways*, and main-

tain the integrity, availability, and/or confidentiality of the information." *Id.* Further, Ginter's "techniques may be used to support an all-electronic information distribution, for example, utilizing the 'electronic highway.'" *Id. See also, e.g.*, Ex. 1219 ¶ 53.

For example, Ginter discloses a Portable Electronic Appliance or "PEA" (*e.g.*, a portable smart-card) that both stores VDE content objects (*e.g.*, movies) and is inserted into an electronic appliance (*e.g.*, a personal computer or PDA). *See, e.g.*, Ex. 1214 Fig. 71, 230:20-29, 169:4-6, 289:27-35. Ex. 1219 ¶ 54.

FIG. 71
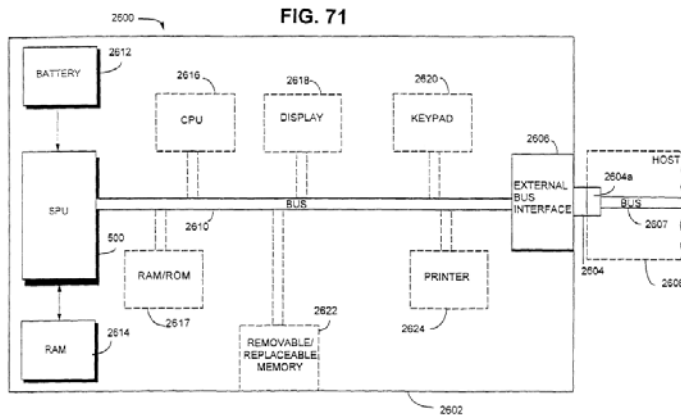
The PEA also stores in a secure database portion of a non-volatile memory of its Secure Processing Unit or "SPU" audit information indicating payments made for VDE content objects and control information that sets forth conditions dictating whether a user can access a VDE content object. *See, e.g.*, Ex. 1214 175:47-176:1, 128:23-36. Ginter further describes that a payment for a particular VDE content object, and the auditing of such a payment, is made "through the use of prepayments, credits, *real-time electronic debits from bank accounts* and/or VDE node currency token deposit account." *See, e.g.*, *id.* 63:34-41; Ex. 1219 ¶ 55.

A user of the electronic appliance can browse a catalog of VDE content objects stored at a remote object repository and select a particular VDE content object for downloading. *See, e.g.*, Ex. 1214 289:27-35. Ginter at minimum renders obvious that, once the particular VDE content object is selected, the PEA could transmit, via the electronic appliance, audit information reflecting a payment made for the particular VDE content object to a clearinghouse. *See, e.g.*, *id.* 175:47-176:1. The clearinghouse validates the audit information and transmits an administrative response back to the electronic appliance (*see, e.g.*, *id.* 161:42-162:6), which then downloads the particular VDE content object together with the accompanying control information from the object repository and stores it in a removable/replaceable memory device of the PEA. *See, e.g.*, *id.* 288:20-29, 289:67-290:2; Ex. 1219 ¶ 56.

The challenged claims would have been obvious based on Ginter in combination with one or more additional references, in the combinations described below. *See also, e.g.*, Ex. 1219 ¶¶ 57-58.

2.   Motivation to Combine Ginter with Poggio

Poggio (pub'd Nov. 26, 1997) published more than a year before any ble '772 priority date, is prior art under AIA § 18(a)(1)(C). Poggio describes secure content distribution with content protection, disclosing a "virtual vending machine" system for sale and distribution of digital products. Ex. 1215 Abstract ("*virtual vending machine* manages a *comprehensive vending service for the distribution of licensed electronic data (i.e., products) over a distributed computer system. . . .* [and] *distributes licenses for the electronic data for*

the complete product or for components thereof and for a variety of time frames, including *permanent licenses and rental period licenses*. [It] provides . . . capability to *obtain information regarding the available products* and the *associated license fees and rental periods*, *to receive the product upon receipt of a corresponding electronic payment, and to reload the product during the term of the license*.”).

Poggio, too, discloses different types of access, including rentals, and re-download capabilities for already-purchased content. *See, e.g., id.* Ex. 1219 ¶¶ 35, 50.

A POSA would have been motivated and found it obvious to combine Ginter with Poggio, and thus to employ Poggio's teachings in implementing Ginter's system. To begin with, these references disclose systems and methods for managing content using content distribution systems having secure transaction links between client devices and content providers. Both references disclose central content stores that both distribute data to requesting client devices and process payment from the requesting devices. To maintain data integrity and limit data access to only authorized devices, the systems in *both* patents employ security and/or encryption protocols, for example by issuing software verification licenses, that are required for content access. *See, e.g.,* Ex. 1215 Abstract, 2:17-20; 2:32-36; Ex. 1214 Abstract; 1:12-19; *see also, e.g.,* Ex. 1219 ¶ 59.

Poggio discloses transmitting a credit card number to a payment validation system in order to pay for content. Poggio further discloses receiving a payment confirmation from the payment validation system. A POSA would have been motivated and

found it obvious to employ the transactional method taught by Poggio in implementing the secure storage system of Ginter. Ginter praises the flexibility of its VDE environment and its ability to be adapted to mirror traditional commercial relationships. In a traditional commercial exchange, a consumer pays for a product, and receives a confirmation of that payment, before receiving the product in a manner similar to that expressly disclosed by Poggio. As such, a POSA would have considered it obvious to employ Poggio's disclosures regarding the purchase of content in the VDE environment disclosed in Ginter in order to allow a consumer to mirror those traditional forms. *See, e.g.*, Ex. 1215 Fig. 7; 9:56–10:25; 10:41-53. *See also, e.g.*, Ex. 1219 ¶ 61.

3. Motivation to Combine Ginter with Poggio and Subler

U.S. Pat. No. 5,646,992 ("Subler," filed Sept. 23, 1993), issued July 8, 1997, disclosing a system that provides an interactive graphical user interface to a user to browse hierarchically organized items that are available for purchasing or installing. Ex. 1236 1:32-41. Subler, published more than a year before any possible '772 priority date, is prior art under AIA § 18(a)(1)(C). The system provides a user with a search functionality through which the user browses available content, for example content on a CD-ROM. *Id.* 12:40-46. When the user performs a search, his device executes code to retrieve information regarding the available content items and present the retrieved information to the user in an interactive windowed graphical user interface. *Id.* 4:49-54; 5:26-30. *See also, e.g.*, Ex. 1219 ¶ 34.

A POSA would have found it obvious to implement Ginter and Poggio's con-

tent distribution system using Subler's teachings of content browsing and code re-
trieving and presenting data in a search functionality to facilitate a user experience in
locating and selecting desired content, for example VDE content and vendor prod-
ucts disclosed in Ginter and Poggio. A POSA would have appreciated the benefit of
incorporating Subler's teachings of executing code on a user's device to present inter-
active searching and browsing in order to present the user with data identifying con-
tent that is available in local memory, for example on Ginter's PEA, or from remote
memory, for example from a virtual vending machine disclosed in Poggio. *See also*, *e.g.*,
Ex. 1219 ¶ 62.

> 4.   **Motivation to Combine Ginter with Poggio, Subler, and Sato**

Sato (pub'd June 18, 1999) discloses storing media content onto mobile user
devices and playing the media content from these mobile devices, as well as storing
that media content on a removable IC card. *See, e.g.*, Ex. 1217 ¶ 9 ("portable music se-
lection and viewing device 70 provides *a removable storage device 76* on a main body 71.
This storage device 76 is *a memory card* similar to, for example. . . an IC card. The user,
after downloading the music software to the storage device (medium) 76 of the porta-
ble music selection and viewing device 70 . . . can enjoy this music software on a dis-
play 72 or a receiver 74 of . . . device 70, and can also enjoy higher quality music play-
back *by removing this storage device (medium) and inserting it into another audio unit*. Further,
the user can store the music software from another audio unit into the storage device
76"); ¶ 13 ("music storage medium 250 such as . . . *a memory card* such as an IC card

stores the music software, and this storage medium 250 can be removed and used on other audio units."); Ex. 1219 ¶ 42. Sato, published before any possible '772 priority date, is prior art under AIA § 18(a)(1)(C).

A POSA also would have been motivated and found it obvious to apply the teachings of Sato, in implementing the system disclosed by Ginter, Poggio, and Subler. Each reference discloses storing and providing data content on user devices, and a POSA would have appreciated that Sato's cellular phone could readily be programmed to function as a user device in the combined system, for example in the VDE environment taught by Ginter. *See, e.g.*, Ex. 1217 Problem; ¶ 9; s*ee also, e.g.*, Ex. 1214 Abstract; 1:12-19; *see also, e.g.*, Ex. 1219 ¶ 64.

Further, Sato discloses storing content data on a removable IC card (data carrier) and accessing content data stored on a removable IC card (data carrier). Sato advantageously provides the added flexibility of allowing users to download content wirelessly, regardless of their physical location, directly onto a removable IC card and playing back the content on another device. A POSA would have considered it desirable to protect the content on Sato's device using, for example, the VDE environment of Ginter. Thus, downloading content wirelessly and storing and accessing content data on a removable card is at minimum rendered obvious by Ginter in light of Sato. *See, e.g.*, Ex. 1219 ¶ 65.

5.   Claims 1, 5, 8, and 10 are Obvious in Light of Ginter in View of Subler and Poggio (Ground 2), Obvious in Light of Ginter

in View of Subler, Poggio, and Sato (Ground 3).

Stefik's disclosure of elements of the challenged claims, along with specific disclosures from Poggio and Sato for combination with Stefik, are summarized below (*see also, e.g.*, Ex. 1219 ¶¶ 58, 67-68, App'x D):

Claim 1	Prior Art
A handheld multimedia terminal, comprising:	**Ginter discloses a handheld multimedia terminal (*e.g.,* a handheld electronic appliance, such as a personal digital assistant).** Ex. 1214 **34:1-6** ("*. . . provide scalable, integratable, standardized control means for use on electronic appliances ranging from inexpensive consumer (for example, television set-top appliances) and professional devices (and hand-held PDAs) to servers, mainframes, communication switches, etc.*"); **100:50-55** ("*Since VDE 100 is highly scalable, different electronic appliances 600 may suggest one way more than the other. For example, in limited environments like a set top, PDA, or other low end electronic appliance, the SRN scheme may be preferred because it limits the amount of resources (memory and processor) required.*"); **109:2-4** ("*Any implementation that supports multiple users (e.g., 'smart home' set tops, many desk tops and certain PDA applications, etc.) may hit limitations of a single threaded device in certain circumstances.*"); **229:18-20** ("*Portable appliance 2600 may, in one embodiment, comprise means to perform substantially all of the functions of a VDE electronic appliance 600.*"); **40:64-67** ("*support smart card implementations of the present invention in the form of portable electronic appliances, including cards that can be employed as secure credit, banking, and/or money cards.*"); **228:36-41** ("*Electronic appliance 600 provided by the present invention may be portable. FIG. 71 shows one example of a portable electronic appliance 2600. Portable appliance 2600 may include a portable housing 2602 that may be about the size of a credit card in one example.*"). *See* Ex. 1219 68.
a wireless interface configured to interface with a wireless network for accessing a remote computer	**Ginter discloses a wireless interface (*e.g.,* communications controller; wireless interface controller) that is configured to interface with a wireless network (*e.g.,* radio frequency or satellite network) for accessing a remote computer system (*e.g.,* external object repository).** Ex. 1214 **161:5-11** ("*Typically, the end user's electronic appliance 600 may initiate communications with a clearinghouse (Block 1152). This contact may, for example, be established automatically or in response to a user command. It may be initiated across the electronic highway 108, or across other communications networks such as a LAN, WAN, two-way cable or using portable media exchange between electronic appliances.*"); **224:14-16** ("*In the context of many computers interconnected by a*

Claim 1	Prior Art
system;	*local or wide area network, it would be possible for one or a few of them to be VDE electronic appliances 600.*"); **34:1-6** ("*. . . provide scalable, integratable, standard-ized control means for use on electronic appliances ranging from inexpensive consumer (for example, television set-top appliances) and professional devices (and hand-held PDAs) to servers, mainframes, communication switches, etc.*"); **100:50-55** ("*Since VDE 100 is highly scalable, different electronic appliances 600 may suggest one way more than the other. For example, in limited environments like a set top, PDA, or other low end electronic appliance, the SRN scheme may be preferred because it limits the amount of resources (memory and processor) required.*"); **109:2-4** ("*Any imple-mentation that supports multiple users (e.g., 'smart home' set tops, many desk tops and certain PDA applications, etc.) may hit limitations of a single threaded device in certain circumstances.*"); **62:30-33** ("*Communications controller 666 may allow elec-tronic appliance 600 to communicate with other electronic appliances via network 672 or other telecommunications links.*"); **224:61-225:6** ("*For example, in a local area network topology, a 'VDE server' electronic appliance 600 could store VDE-protected information and make it available to one or more additional electronic appli-ances 600 or computers that may communicate with the server over network 672. As one example, an object repository 728 storing VDE objects could be maintained at the centralized server, and each of many networked electronic appliance 600 users could access the centralized object repository over the network 672 as needed.*"); **280:63-281:2** ("*One possible arrangement of VDE nodes involves use of one or more 'repositories.' A repository, for example, may serve as a location from which VDE participants may retrieve VDE content containers. In this case, VDE users may make use of a network to gain access to a 'server' system that allows one or more VDE users to access an object repository containing VDE content containers.*"); **226:63-227:2** ("*Referring back to FIG. 7, scanner 626, modem 618, telecommuni-cation means 624, keyboard 612 and/or voice recognition box 613 could each com-prise a VDE electronic appliance 600 having its own SPU 500. Additional exam-ples include RF or otherwise wireless interface controller, a serial interface controller, LAN controllers, MPEG (video) controllers, etc.*"); **233:53-57** ("*The portable de-vice auxiliary terminal might be 'on-line,' that is electronically communicating back to a commercial establishment and/or third party information collection point through the use of cellular, satellite, radio frequency, or other communications means.*").[12] *See* Ex.

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[12] A POSA would have understood that when a hand-held electronic appliance, such

as a personal digital assistant, accesses a remote computer system (*e.g.,* external object

Claim 1	Prior Art
	1219 68-71.
	Sato also discloses a wireless interface (*e.g.,* radio transceiver) configured to interface with a wireless network (*e.g.,* wireless public communication network) for accessing a remote computer system (*e.g.,* distribution center).[13] Ex. 1217 ¶ **3** (*"In conjunction with the*

repository) over a network, for example over satellite or radio frequency communications as disclosed in Ginter, the hand-held electronic appliance communicates over a wireless connection. *See, e.g.*, Ex. 1214 34:1-6; 224:61-225:6; 233:53-57. Accordingly, a POSA would have understood that the hand-held electronic appliance necessarily and thus inherently includes a wireless interface (*e.g.,* communications controller; wireless interface controller) configured to interface with the wireless network (*e.g.*, a satellite or radio frequency network) for accessing a remote computer system (*e.g.*, external object repository). A POSA would have considered it at a minimum obvious for the handheld multimedia terminal (*e.g.,* handheld electronic appliance) to have a wireless interface configured to interface with a wireless network for accessing a remote computer system (*e.g.*, external object repository) in view of Ginter's teachings of a wireless interface controller and wireless communications, such as radio frequency or satellite communications, and/or Sato's teachings of a radio transceiver. *See, e.g.,* Ex. 1214 226:63-227:2; 233:53-57; Ex. 1217 at ¶ 6; Ex. 1219 70-71.
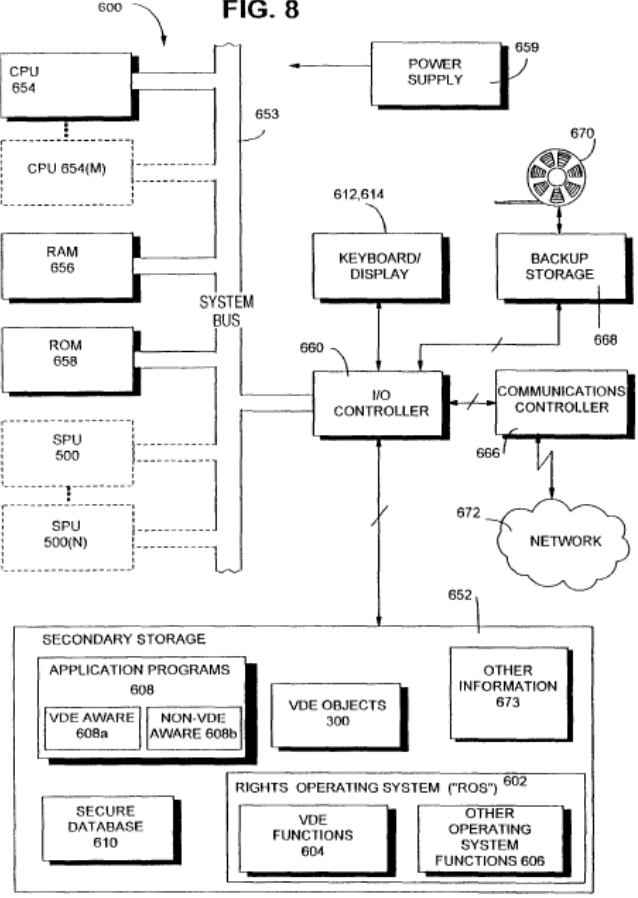
[13] A POSA would have been motivated and found it obvious and advantageous to implement Ginter's VDE environment using a mobile phone as taught in Sato,

Claim 1	Prior Art
	spread of mobile phone systems, it is now possible to offer users a variety of services in addition to phone services. The present invention provides a music selection viewing system that uses a wireless public communications network.”); ¶ **6** (“*Users having the portable music selection and viewing device 50 operate the push buttons or the like on the main body 51 to call the distribution center 10 via the public communications network 30 and receive the desired music software via the public communications network 30.*”); ¶ **8** (“*With this model of portable music selection and viewing device 60, the push buttons or the like of the main body 61 are operated to call the distribution center 10, and the supplied music software received is output to a receiver 64 and to a display 62 and stored in the storage 66.*”); ¶ **10** (“*FIG. 2 is a configuration diagram of the portable music selection and viewing device of the present invention having the functionality of a mobile phone. . . . A button input control unit 180, having a button input part 182 which the user operates, sends a signal to the comprehensive control unit 110, and the comprehensive control unit 110 displays operation content on a display unit 162 via a display control unit 160 and accesses the public communications network via a radio wave transmitting and receiving control unit 140 and an antenna 150. If the user calls a phone of another party, the switchboard calls the other party's phone, and the user can communicate with the other party's phone by using a transmitter 174 and a receiver 172 connected to a transmitting and receiving control unit 170.*”); ¶¶ **11-12** (“*After the user operates the button input part 182 and outputs a command to call the distribution center, the content is displayed on the display unit 162, and the radio wave transmitting and receiving control unit 140 accesses the distribution center via the public communications network through the antenna 150. Once the distribution center is accessed, the user commands a song selection, and the**

because, *inter alia*, Ginter's VDE environment would benefit from including additional

devices onto which consumers download content by expanding the overall user-base

of the system and from the added flexibility of allowing users to download content

wirelessly, regardless of their physical location, and protecting downloaded content

using the VDE containers discussed in Ginter would ensure that content providers

would be comfortable making their content available for use with removable IC cards,

as discussed in Sato. *See* Ex. 1219 71-72.

Claim 1	Prior Art
	distribution center sends back the selected music software."). *See* Ex. 1219 71-72.
non-volatile memory configured to store multimedia content, wherein said multimedia content comprises one or more of music data, video data and computer game data;	**Ginter discloses a non-volatile memory (*e.g.,* secondary storage, such as a CD-ROM) configured to store multimedia content (*e.g.,* VDE content objects).** Ex. 1214 **FIG. 8; 62:41-45** ("*Secondary storage 662 may comprise the same one or more non-secure secondary storage devices (such as a magnetic disk and a CD-ROM drive as one example) that electronic appliance 600 uses for general secondary storage functions.*"); **62:64-65** ("*Secondary storage 652 may also store one or more VDE objects 300.*"). *See* Ex. 1219 72. **Additionally, Ginter discloses that the multimedia content (*e.g.,* VDE content object) can be music data (*e.g.,* musical performance), movie or other video, book text, or software.** Ex. 1214 **58:57-62** ("*Container 302 may contain information content 304 in electronic (such as 'digital') form. Information content 304 could be the text of a novel, a picture, sound such as a musical performance or a reading, a movie or other video, computer software, or just about any other kind of electronic information you can think of.*"). *See* Ex. 1219 72-73.
a program store storing processor control code;	**Ginter discloses a program store (*e.g.,* ROM 658) storing processor control code (*e.g.,* applications).** Ex. 1214 **FIG. 8; 60:49-62** ("*The operating system 602 may also support at least one 'application' 608. Generally, 'application' 608 is hardware and/or software specific to the context of appliance 600. For example, if appliance 600 is a personal computer, then 'application' 608 could be a program loaded by the user, for instance, a word processor, a communications system or a sound recorder. If appliance 600 is a television controller box, then application 608 might be hardware or software that allows a user to order videos on demand and perform other functions such as fast forward and rewind. In this example, operating system 602 provides a standardized, well defined, generalized 'interface' that could support and work with many different 'applications' 608.*"); **63:15-25** ("*FIG. 8 shows that secondary storage 652 may also be used to store code ('application programs') providing user application(s) 608 shown in FIG. 7. FIG. 8 shows that there may be two general types of application programs 608: 'VDE aware' applications 608a, and Non-VDE aware applications 608b. VDE aware applications 608a may have been at least in part designed specifically with VDE 100 in mind to access and take detailed advantage of VDE functions 604. Because of the 'transparency' features of ROS 602, non-VDE aware applications 608b (e.g., applications not specifically designed for VDE 100) can also access and take advantage of VDE functions 604.*"); **63:8-15** ("*Portions of the elements indicated in secondary storage 652 may also be stored in ROM 658, so long as those elements do not require changes (except when*"

Claim 1	Prior Art
	ROM 658 is replaced). Portions of ROS 602 in particular may desirably be included in ROM 658 (e.g., 'bootstrap' routines, POST routines, etc. for use in establishing an operating environment for electronic appliance 600 when power is applied)."). See Ex. 1219 73-74.
a processor coupled to said non-volatile memory, said pro-gram store, said wire-less inter-face and a user inter-face to al-low a user to select and play said multi-media con-tent;	**Ginter discloses a processor (*e.g.,* CPU) coupled to the non-volatile memory (*e.g.,* secondary storage), the program store (*e.g.,* ROM 658), the wireless interface (*e.g.,* communications controller), and a user interface (keyboard and/or display).** Ex. 1214 **FIG. 8; 60:31-35** (*"Electronic appliance 600 in this example may include a keyboard or keypad 612, a voice recognizer 613, and a display 614. A human user can input commands through keyboard 612 and/or voice recognizer 613, and may view information on display 614. "*); **62:13-17** (*"This example of electronic appliance 600 includes a system bus 653. In this example, one or more conventional general purpose central processing units ('CPUs') 654 are connected controller), and a user interface (e.g., keyboard and/or to bus 653. Bus 653 connects CPU(s) 654 to RAM 656, ROM 658, and I/O controller 660."*); **62:25-28** (*"In the example shown, I/O controller 660 is connected to secondary storage device 652, a keyboard/display 612, 614, a communications controller 666, and a backup storage device 668."*); **62:56-58** (*"Secondary storage 652 in this example stores code and data used by CPU 654 and/or SPU 500 to control the overall operation of electronic appliance 600."*); **75:35-37** (*"A host processor CPU 654 may provide storage, database, and communications services."*); **63:8-15** (*"Portions of the elements indicated in secondary storage 652 may also be stored in ROM 658, so long as those elements do not require changes (except when ROM 658 is replaced). Portions of ROS 602 in particular may desirably be included in ROM 658 (e.g., 'bootstrap' routines, POST routines, etc. for use in establishing an operating environment for electronic appliance 600 when power is applied).")*. See Ex. 1219 74-75.

Claim 1	Prior Art
	  The user interface (*e.g.,* keyboard and/or display) allows a user to select and play multimedia content (*e.g.,* VDE content object). Ex. 1214 **60:31-35** ("*Electronic appliance 600 in this example may include a keyboard or keypad 612, a voice recognizer 613, and a display 614. A human user can input commands through keyboard 612 and/or voice recognizer 613, and may view information on display 614.*"); **169:51-55** ("*Generally, 'user-initiated' events are happenings attributable to a user (or a user application). A common 'user-initiated' event is a user's request (e.g., by pushing a keyboard button, or transparently using redirector 684) to access an object 300 or other VDE-protected information.*"). *See* Ex. 1219 75-76.
a display for displaying one or both of said played multimedia	**Ginter discloses a display for displaying one or both of said played multimedia content (*e.g.,* VDE content object) and data relating to said played multimedia content (*e.g.,* a VDE content object's name, access unit size, cost per access unit, and/or text description).** Ex. 1214 **FIGS. 72A-D; 60:31-35** ("*Electronic appliance 600 in this example may include a keyboard or keypad 612, a voice recognizer 613, and a dis-*

Claim 1	Prior Art
content and data relating to said played multimedia content; wherein the processor control code comprises:	*play 614. A human user can input commands through keyboard 612 and/or voice recognizer 613, and may view information on display 614. ”*); **58:33-34** (“*Content may be supplied to the user once these processes have been successfully performed.*”); **81:46-51** (“*User Notification/Exception Interface 686 in the preferred embodiment (which may be considered part of API 682 or another application coupled to the API) provides ‘pop up’ windows/displays on display 614. This allows ROS 602 to communicate directly with a user without having to pass information to be communicated through applications 608.*”); **99:43-58** (“*User Notification Service Manager 740 and associated user notification exception interface (‘pop up’) 686 provides ROS 602 with an enhanced ability to communicate with a user of electronic appliance 600. Not all applications 608 may be designed to respond to messaging from ROS 602 passed through API 682, and it may in any event be important or desirable to give ROS 602 the ability to communicate with a user no matter what state an application is in. User notification services manager 740 and interface 686 provides ROS 602 with a mechanism to communicate directly with a user, instead of or in addition to passing a return call through API 682 and an application 608. This is similar, for example, to the ability of the Windows operating system to display a user message in a ‘dialog box’ that displays ‘on top of’ a running application irrespective of the state of the application.*”); **286:57-287:4** (“*In addition to recording information regarding delivery of such VDE controlled content, author 3306A may have required or requested the repository to perform certain VDE container related processes. For example, author 3306A may want differing abstract and/or other descriptive information delivered to different classes of users. In addition, author 3306A may wish to deliver promotional materials in the same container as submitted content depending on, for example, the character of usage exhibited by a particular user (e.g. whether the user has ever received content from author 3306A, whether the user is a regular subscriber to author 3306A's materials, and/or other patterns that may be relevant to author 3306A and/or the end user that are used to help determine the mix of promotional materials delivered to a certain VDE content end user.)*”); **237:49-60** (“*FIG. 72B shows an example of a ‘pop-up’ user interface 686 dialog that is activated when an action by the user has been ‘trapped,’ in this case to warn the user about the amount of expense that will be incurred by the user's action, as well as to alert the user about the object 300 which has been requested and what that particular object will cost to use. In this example, the interface dialog provides a button allowing the user to request further detailed information about the object, including full text descriptions, a list of associated files, and perhaps a history of past usage of the object including any residual rights to use the object or associated discounts.*”). *See* Ex. 1219 76-78.

Claim 1	Prior Art
	FIG. 72B 2660 YOU HAVE REQUESTED THESE PROPERTIES: CANCEL ⚠ *LOONEY TUNES NEWS!* APPROVE SUSPEND 2662 PROPERTY INFO Your Cost: $7.50 MORE OPTIONS 2664
code to request identifier data identifying one or more items of multimedia content stored in the non-volatile memory;	**Ginter discloses a processor (*e.g.,* CPU) implementing code (*e.g.,* software instructions utilized by the CPU) to perform functions including browsing items of multimedia content (*e.g.,* VDE content object) stored in the non-volatile memory (*e.g.,* secondary storage).** Ex. 1214 **FIG. 72D; 238:50-64** ("*Other important 'pop-up' user interface 686 functions include dialogs which enable flexible browsing through libraries of properties or objects available for licensing or purchase, either from locally stored VDE protected objects and/or from one or more various, remotely located content providers. Such function may be provided either while the user's computer is connected to a remote distributor's or clearinghouse's electronic appliance 600, or by activating an electronic connection to a remote source after a choice (such as a property, a resource location, or a class of objects or resources is selected). A browsing interface can allow this electronic connection to be made automatically upon a user selection of an item, or the connection itself can be explicitly activated by the user.* **Ginter discloses examples of "pop-up" user interface dialogs activated when a user browses and requests a VDE object.** Ex. 1214 **FIGS. 72B-D; 238:50-64; 236:65-237:1** ("*User Notification Exception Interface ('Pop-Up') 686 As described above, the User Modification Exception Interface 686 may be a set of user interface programs for handling common VDE functions.*"); **237:49-60** ("*FIG. 72B shows an example of a 'pop-up' user interface 686 dialog that is activated when an action by the user has been 'trapped,' in this case to warn the user about the amount of expense that will be incurred by the user's action, as well as to alert the user about the object 300 which has been requested and what the particular object will cost to use. In this example, the interface dialog provides a button allowing the user to request further detailed information about the object, including full text descriptions, a list of associated files, and*

Claim 1	Prior Art
	perhaps a history of past usage of the object including any residual rights to use the object or associated discounts.")[14] *See* Ex. 1219 78-79.
	Subler discloses browsing available local multimedia (*e.g.*, available files on a CD-ROM) on an end-user device. Ex. 1236 **1:31-36** ("*In general, in one aspect, the invention features a graphical user interface for aiding use of a group of items of digital information. Hierarchically organized graphical representations of the items and groups of the items which are available to be ordered by the user are displayed to the user.*"); **3:28-31** ("*The publisher can provide a large number and wide variety of items to a user, permitting the user to browse and preview the items, giving the user the opportunity to pick and pay for only those items of interest.*"). **The user browses by searching and navigating interactive displays of available content, including identifier data (*e.g.*, titles) of available items.** *Id.* **7:14-18** ("*Each item is identified by an internal ID number, a vendor ID number, a publisher ID number, an original manufacturer ID number, a title for the item (for display at the end user's workstation), a description of the item, and a list of properties of the item.*"); **12:53-56** ("*The end user invokes the search function by clicking on the search button 390 (FIG. 13). When the search is completed the results*

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[14] A POSA would have been motivated and found it straightforward and obvious to implement such interfaces by first requesting the data to be displayed in the interfaces, such as identifier data for a VDE content item. A POSA would understand that in order to display data, a processor-based system must first retrieve the data, and would have found it straightforward and obvious to query the appropriate storage system (*e.g.*, memory) containing the data to be displayed. Ginter explicitly discloses displays including user-selectable buttons used to request detailed information about VDE objects. A POSA would have found it straightforward and obvious to execute code requests for the data linked to such user-selectable buttons to prepare a responsive display including the requested data. *See* Ex. 1219 79.

Claim 1	Prior Art
	are represented by thumbnails displayed in the Viewer window."). **The displayed data describing the available content is requested from (*e.g.*, "derived" from) the CD-ROM database when the user invokes a search function to search the contents of the database.** *Id.* **12:18-22** ("*The information for every item includes the item identifying number 370, the version number 372, the size 374, the title 376, a description 378, a file format 380, the status 382, and the installed path 384. Of these items all but the last two are derived from the CD-ROM database.*"). **Subler expressly discloses software code providing the integrated navigation and data retrieval and display functions of the end user device.** *Id.* **4:49-54** ("*The end user system software includes code which allows the user to browse through information representing the items, to preview certain items, to generate and send a purchase order 40 to an order taking system 42, to receive back an acknowledgement of the order, to 'unlock' the order items, and to install them on the workstation.*"); **5:26-30** ("*The end user system includes code which provides an integrated windowed graphical user interface through which users may browse, preview, order, unlock, and install valued items and*

Claim 1	Prior Art
	other information stored on the CD-ROM.").[15] *See* Ex. 1219 79-81.
code to re-ceive said identifier data;	**Ginter discloses displaying identifier data (*e.g.,* property titles in a catalog of VDE content objects) identifying one or more items of multimedia content (*e.g.,* VDE content object) stored in the non-volatile memory (*e.g.,* secondary storage).** Ex. 1214 **FIG. 72D; 238:50-64** ("*Other important 'pop-up' user interface 686 functions include dialogs which enable flexible browsing through libraries of properties or objects available for licensing or purchase, either from locally stored VDE protected objects and/or from*

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[15] A POSA would have been motivated and found it obvious to implement Ginter's browsing interfaces displaying VDE content and data regarding that content using Subler's advantageous explicit teachings of interactive searching and browsing using a search function and code to request such data to facilitate the user experience in locating and selecting desired VDE content available from memory storage. Ginter repeatedly refers to the flexibility of the VDE environment and electronic appliances employed in that network, and a POSA would have appreciated the benefit of incorporating Subler's teachings of interactive searching and browsing into the flexible appliances of Ginter to request and retrieve data identifying available content in order to provide an advantageous content navigation user experience. *See, e.g.,* Ex. 1236 3:46-50 ("The user is provided with a powerful, easy-to-use interface to browse through and analyze the features of a wide range of items and product groupings, to pick and choose those which it wishes to order, to place the order, and then to install the items on his computer. This provides an easy and highly effective way to shop, not only for software, and databases, but for virtually any product."). *See* Ex. 1219 81.
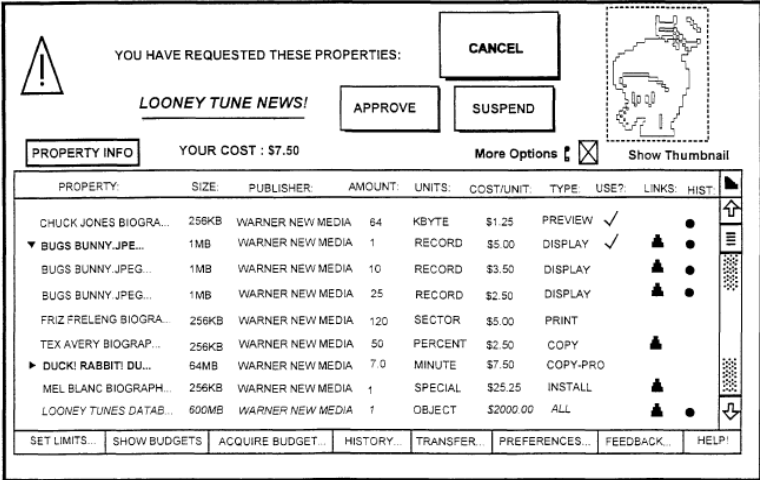
Claim 1	Prior Art
	one or more various, remotely located content providers. Such function may be provided either while the user's computer is connected to a remote distributor's or clearinghouse's electronic appliance 600, or by activating an electronic connection to a remote source after a choice (such as a property, a resource location, or a class of objects or resources is selected). A browsing interface can allow this electronic connection to be made automatically upon a user selection of an item, or the connection itself can be explicitly activated by the user. See FIG. 72D for an example of such a 'browsing' dialog."). **The data is displayed in a browsing interface that is populated by a "browsing dialog."** *Id. See* Ex. 1219 81-82.
	Ginter discloses examples of "pop-up" user interface dialogs activated when a user browses and requests a VDE object. Ex.1214 **FIGS. 72B-D; 236:65-237:1** ("*User Notification Exception Interface ('Pop-Up') 686 As described above, the User Modification Exception Interface 686 may be a set of user interface programs for handling common VDE functions.*"); **237:49-60** ("*FIG. 72B shows an example of a 'pop-up' user interface 686 dialog that is activated when an action by the user has been 'trapped,' in this case to warn the user about the amount of expense that will be incurred by the user's action, as well as to alert the user about the object 300 which has been requested and what the particular object will cost to use. In this example, the interface dialog provides a button allowing the user to request further detailed information about the object, including full text descriptions, a list of associated files, and perhaps a history of past usage of the object including any residual rights to use the object or associated discounts.*"); **238:50-64.**[16] *See* Ex. 1219 82-83.

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[16] A POSA would have been motivated and found it straightforward and obvious to implement such interfaces by receiving the data to be displayed in the interfaces, such as identifier data for a VDE content item. A POSA would understand that in order to display data, a processor-based system must first retrieve the data, and would have found it straightforward and obvious to receive the data in response to a query to the appropriate storage system (*e.g.*, memory) containing the data to be displayed. Ginter explicitly discloses displays including user-selectable buttons used to request detailed

Claim 1	Prior Art
	Subler discloses browsing and searching available local multimedia (*e.g.*, available files on a CD-ROM) on an end-user device. Ex. 1236 **1:31-36** ("*In general, in one aspect, the invention features a graphical user interface for aiding use of a group of items of digital information. Hierarchically organized graphical representations of the items and groups of the items which are available to be ordered by the user are displayed to the user.*"); **3:28-31** ("*The publisher can provide a large number and wide variety of items to a user, permitting the user to browse and preview the items, giving the user the opportunity to pick and pay for only those items of interest.*"). **Subler employs interactive displays of available content, including identifier data (*e.g.*, titles) of available items, to provide the user with search functionality.** *Id.* **7:14-18** ("*Each item is identified by an internal ID number, a vendor ID number, a publisher ID number, an original manufacturer ID number, a title for the item (for display at the end user's work-station), a description of the item, and a list of properties of the item.*"); **12:53-56** ("*The end user invokes the search function by clicking on the search button 390 (FIG. 13). When the search is completed the results are represented by thumbnails displayed in the Viewer window.*"). **The displayed data describing the available content is received from (*e.g.*, "derived" from) the CD-ROM database when the database responds to a user-invoked search function to search the contents of the database.** *Id.* **12:18-22** ("*The information for every item includes the item identifying number 370, the version number 372, the size 374, the title 376, a description 378, a file format 380, the status 382, and the installed path 384. Of these items all but the last two are derived from the CD-ROM database.*"). **Subler expressly discloses software code providing the integrated navigation and data retrieval and display functions of the end user device.** *Id.* **4:49-54**; **5:26-30**. *See* Ex. 1219 83-84.[17]
code to present to a user on said display said	**Ginter discloses a processor (*e.g.*, CPU) implementing code (*e.g.*, software instructions utilized by the CPU) to perform functions including presenting to a user on the display the identified one or more items of multimedia content (*e.g.,* VDE content object)**

information about VDE objects. A POSA would have found it straightforward and

obvious to execute code to receive the data linked to such user-selectable buttons to

prepare a responsive display including the requested data. *See* Ex. 1219 82-83.

[17] *See* n.15, *supra*. *See also* Ex. 1219 84.

Claim 1	Prior Art
identified one or more items of multimedia content available from the non-volatile memory;	**available from the non-volatile memory (*e.g.,* secondary storage).** Ex. 1214 **FIG. 72D; 81:46-51** ("*User Notification/Exception Interface 686 in the preferred embodiment (which may be considered part of API 682 or another application coupled to the API) provides 'pop up' windows/displays on display 614. This allows ROS 602 to communicate directly with a user without having to pass information to be communicated through applications 608.*"); **238:50-64** ("*Other important 'pop-up' user interface 686 functions include dialogs which enable flexible browsing through libraries of properties or objects available for licensing or purchase, either from locally stored VDE protected objects and/or from one or more various, remotely located content providers. Such function may be provided either while the user's computer is connected to a remote distributor's or clearinghouse's electronic appliance 600, or by activating an electronic connection to a remote source after a choice (such as a property, a resource location, or a class of objects or resources is selected). A browsing interface can allow this electronic connection to be made automatically upon a user selection of an item, or the connection itself can be explicitly activated by the user. See id. FIG. 72D for an example of such a 'browsing' dialog.*"). *See* Ex. 1219 84-85. FIG. 72D **Subler also discloses presenting (*e.g.,* displaying) available content items available from memory (*e.g.,* a CD-ROM).** Ex. 1236 **1:31-36** ("*In general, in one aspect, the invention features a graphical user interface for aiding use of a group of items of digital information. Hierarchically organized graphical representations of the items and groups of the items which are available to be ordered by the user are displayed to the user.*"); **12:10-13** ("*By clicking an individual item thumbnail, the user may cause display of additional information about that item (for example more comprehensive displays of the font (FIG. 14)).*"); **12:53-56** ("*The end user invokes the search function by clicking on the search button 390 (FIG. 13).*"

Claim 1	Prior Art
	When the search is completed the results are represented by thumbnails displayed in the Viewer window."). **Subler expressly discloses software code providing the integrated navigation and data retrieval and display functions of the end user device.** *Id.* **4:49-54**; **5:26-30**. *See* Ex. 1219 85-86.[18]
code to receive a user selection to select at least one of said one or more of said stored items of multimedia content;	**Ginter discloses a processor (*e.g.*, CPU) implementing code (*e.g.*, software instructions utilized by the CPU) to perform functions including receiving a user selection (*e.g.*, user request) to select at least one of said one or more of said stored items of multimedia content (*e.g.*, VDE content object).** Ex. 1214 **FIG. 72D; 177:10-18** ("*The steps shown in FIG. 43a may be, for example, performed at a user VDE node in response to some action by or on behalf of the user. For example the user may ask to access an object that has not yet been (or is not now) properly registered to her. In response to such a user request, the REGISTER method 2400 may prime a Register Audit Trail UDE (blocks 2402, 2404) before determining whether the object being requested has already been registered (decision block 2406).*"); **183:24-30** ("*The OPEN method process starts with an 'open event.' This open event may be generated by a user application, an operating system intercept or various other mechanisms for capturing or intercepting control. For example, a user application may issue a request for access to a particular content stored within the VDE container. As another example, another method may issue a command.*"); **82:32-41** ("*As one simple example, redirector 684 may intercept a 'file open' call from application 608(b), determine whether the file to be opened is contained within a VDE container 300, and if it is, generate appropriate VDE function call(s) to file system 687 to open the VDE container (and potentially generate events to HPE 655 and/or SPE 503 to determine the name(s) of file(s) that may be stored in a VDE object 300, establish a control structure associated with a VDE object 300, perform a registration for a VDE object 300, etc.).*"); **238:50-64** ("*Other important 'pop-up' user interface 686 functions include dialogs which enable flexible browsing through libraries of properties or objects available for licensing or purchase, either from locally stored VDE protected objects and/or from one or more various, remotely located content providers. Such function may be provided either while the user's computer is connected to a remote distributor's or clearinghouse's electronic appliance 600, or by activating an electronic connection to a remote source after a choice (such as a property, a resource location, or a class of objects or resources is selected). A browsing interface can allow this electronic connection to be made automatically upon a user selection of an item, or the connection itself can be explicitly activated by the user. See Ex. 1219 87-88.*"
code re-	**Ginter discloses a processor (*e.g.*, CPU) implementing code (*e.g.*,**

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[18] *See* n.15, *supra. See also* Ex. 1219 86-87.

Claim 1	Prior Art
sponsive to said user selection of said at least one selected item of multimedia content to transmit payment data relating to payment for said at least one selected item of multimedia content via said wireless interface for validation by a payment validation system;	**software instructions utilized by the CPU) to perform functions including, responsive to the user selection (*e.g.,* user request) of at least one selected item of multimedia content (*e.g.,* VDE content object), transmitting payment data (*e.g.,* audit information) relating to payment for the at least one selected item of multimedia content (*e.g.,* VDE content object) via the wireless interface (*e.g.,* communications controller) for validation by a payment validation system.** Ex. 1214 **63:34-41** ("*SPU 500 may also perform secure data management processes including governing usage of, auditing of, and where appropriate, payment for VDE objects 300 (through the use of prepayments, credits, real-time electronic debits from bank accounts and/or VDE node currency token deposit accounts). SPU 500 may perform other transactions related to such VDE objects 300.*"); **161:42-161:6** ("*Once a secure connection is established, the end user's electronic appliance may determine (e.g., based on Shipping Table 444) whether it has any administrative object(s) containing audit information that it is supposed to send to the clearinghouse (decision Block 1156). Audit information pertaining to several VDE objects 300 may be placed within the same administrative object for transmission, or different administrative objects may contain audit information about different objects. Assuming the end user's electronic appliance has at least one such administrative object to send to this particular clearinghouse ('yes' exit to decision Block 1156), the electronic appliance sends that administrative object to the clearinghouse via the now-established secure real-time communications (Block 1158). . . . The clearinghouse may receive the administrative object and process its contents to determine whether the contents are 'valid' and 'legitimate.' For example, the clearinghouse may analyze the contained audit information to determine whether it indicates misuse of the applicable VDE object 300. The clearinghouse may, as a result of this analysis, may generate one or more responsive administrative objects that it then sends to the end user's electronic appliance 600 (Block 1160).*"); **163:38-61** ("*During the same or different communications exchange, the same or different clearinghouse may handle the end user's request for additional budget and/or permission pertaining to VDE object 300. For example, the end user's electronic appliance 600 may (e.g., in response to a user input request to access a particular VDE object 300) send an administrative object to the clearinghouse requesting budgets and/or other permissions allowing access (Block 1164). As mentioned above, such requests may be transmitted in the form of one or more administrative objects, such as, for example, a single administrative object having multiple 'events' associated with multiple requested budgets and/or other permissions for the same or different VDE objects 300. The clearinghouse may upon receipt of such a request, check the end user's credit, financial records, business agreements and/or audit histories to determine whether the requested budgets and/or permissions should be giv-*"

Claim 1	Prior Art
	en. The clearinghouse may, based on this analysis, send one or more responsive administrative objects which cause the end user's electronic appliance 600 to update its secure database in response (Block 1166, 1168). This updating might, for example, comprise replacing an expired PERC 808 with a fresh one, modifying a PERC to provide additional (or lesser) rights, etc."); **175:3-22** ("*In general, the 'use' mode of BUDGET method 2250 is invoked in response to an event relating to the use of an object or its content. The 'administrative request' mode of BUDGET method 2250 is invoked by or on behalf of the user in response to some user action that requires contact with a VDE financial provider, and basically its task is to send an administrative request to the VDE financial provider. The 'administrative response' mode of BUDGET method 2250 is performed at the VDE financial provider in response to receipt of an administrative request sent from a VDE node to the VDE financial provider by the 'administrative request' invocation of BUDGET method 2250 shown in FIG. 42b. The 'administrative response' invocation of BUDGET method 2250 results in the transmission of an administrative object from VDE financial provider to the VDE user node. Finally, the 'administrative reply' invocation of BUDGET method 2250 shown in FIG. 42d is performed at the user VDE node upon receipt of the administrative object sent by the 'administrative response' invocation of the method shown in FIG. 42c.*"); **175:47-176:1** ("*Looking at FIG. 42b, the first six steps (blocks 2280-2290) may be performed by the user VDE node in response to some user action (e.g., request to access new information, request for a new budget, etc.). This 'administrative request' invocation of BUDGET method 2250 may prime an audit trail (blocks 2280, 2282). The method may then place a request for administrative processing of an appropriate Budget onto a request queue (blocks 2284, 2286). Finally, the method may save appropriate audit trail information (blocks 2288, 2290). Sometime later, the user VDE node may prime a communications audit trail (blocks 2292, 2294), and may then write a Budget Administrative Request into an administrative object (block 2296). This step may obtain information from the secure database as needed from such sources such as, for example, Budget UDE; Budget Audit Trail UDE(s); and Budget Administrative Request Record(s) (block 2298). Block 2296 may then communicate the administrative object to a VDE financial provider, or alternatively, block 2296 may pass administrative object to a separate communications process or method that arranges for such communications to occur.*"). **To the extent it is argued that Ginter's transmitting of audit information does not necessarily reflect payment for a currently requested VDE content object, Ginter at a minimum renders this ob-**

Claim 1	Prior Art
	vious. Ginter discloses paying for VDE content objects with **"real-time debits from bank accounts."**[19] Ex. 1214 **63:34-41**. *See* Ex. 1219 88-91.
	Additionally, Poggio discloses transmitting payment data (*e.g.,* credit card number) to a payment validation system in order to pay for content.[20] Ex. 1215 **FIG. 7; 9:56- 10:10** (*"Otherwise (step 704-Y) the method proceeds to collect a form of electronic payment for the license fee (step 71 0). Preferably, the web server 114 forwards an invoice 222 to the user associated with a client computer 120. The user adds a credit card number (or other form of payment authorization) to the invoice, which is then encrypted and forwarded back to the web server 114. The web server 114 attaches a confirmation number to the invoice and the entire invoice is encrypted and transmitted to the digital cash interface 116. The digital cash interface 116 reformats the invoice into the appropriate format for transmittal to the electronic banking network 118 which processes the transaction."*); **10:41-53** (*"In alternate embodiments, the payment transaction could be handled in other ways, depending on the electronic payment methods that are commercially available. For instance, the virtual vending machine could request that the requesting user pay it a specified amount of funds, after which the user would perform a separate transaction, using an appropriate electronic banking network or service provider, to pay the specified*

[19] A POSA would at minimum have found it obvious to apply Ginter's teaching of using audit information as payment data to a real-time transaction in order to reflect payment for a currently requested VDE object.

[20] A POSA would have been motivated and found it obvious to implement Ginter's VDE environment using the purchase process teachings of Poggio because Ginter expressly touts the VDE environment's ability to be adapted to mirror traditional commercial relationships like that of Poggio, where a consumer transmits payment data (*e.g.,* credit card number) to a payment validation system in order to purchase a product. *See* Ex. 1219 91-92.

Claim 1	Prior Art
	funds to the virtual vending machine. The virtual vending machine, upon receipt of confirmation from the electronic banking network or service provider that the payment had been made, would then transmit the electronic data to the client computer."). See Ex. 1219 91-92.
code to receive payment validation data via said wireless interface defining if said payment validation system has validated payment for said at least one selected item of multimedia content; and	**Ginter discloses a processor (*e.g.*, CPU) implementing code (*e.g.*, software instructions utilized by the CPU) to perform functions including receiving payment validation data (*e.g.*, administrative response) via the wireless interface (*e.g.*, communications controller) if the payment validation system has validated payment for the at least one selected item of multimedia content (*e.g.*, VDE content object).** Ex. 1214 **163:38-61** ("*During the same or different communications exchange, the same or different clearinghouse may handle the end user's request for additional budget and/or permission pertaining to VDE object 300. For example, the end user's electronic appliance 600 may (e.g., in response to a user input request to access a particular VDE object 300) send an administrative object to the clearinghouse requesting budgets and/or other permissions allowing access (Block 1164). As mentioned above, such requests may be transmitted in the form of one or more administrative objects, such as, for example, a single administrative object having multiple 'events' associated with multiple requested budgets and/or other permissions for the same or different VDE objects 300. The clearinghouse may upon receipt of such a request, check the end user's credit, financial records, business agreements and/or audit histories to determine whether the requested budgets and/or permissions should be given. The clearinghouse may, based on this analysis, send one or more responsive administrative objects which cause the end user's electronic appliance 600 to update its secure database in response (Block 1166, 1168). This updating might, for example, comprise replacing an expired PERC 808 with a fresh one, modifying a PERC to provide additional (or lesser) rights, etc.*"); **175:3-22** ("*In general, the 'use' mode of BUDGET method 2250 is invoked in response to an event relating to the use of an object or its content. The 'administrative request' mode of BUDGET method 2250 is invoked by or on behalf of the user in response to some user action that requires contact with a VDE financial provider, and basically its task is to send an administrative request to the VDE financial provider. The 'administrative response' mode of BUDGET method 2250 is performed at the VDE financial provider in response to receipt of an administrative request sent from a VDE node to the VDE financial provider by the 'administrative request' invocation of BUDGET method 2250 shown in FIG. 42b. The 'administrative response' invocation of BUDGET method 2250 results in the transmission of an administrative object from VDE financial provider to the VDE user node. Finally, the 'administrative reply' invocation of BUDGET method 2250 shown in FIG. 42d is performed at the user VDE node upon receipt of*"

Claim 1	Prior Art
	the administrative object sent by the 'administrative response' invocation of the method shown in FIG. 42c."); **176:13-33** ("*Upon receiving the administrative object, BUDGET method 2250 at the VDE financial provider site may prime a budget communications and response audit trail (blocks 2306, 2308), and may then unpack the administrative object and retrieve the budget request(s), audit trail(s) and record(s) it contains (block 2310). This information retrieved from the administrative object may be written by the VDE financial provider into its secure database (block 2312). The VDE financial provider may then retrieve the budget request(s) and determine the response method it needs to execute to process the request (blocks 2314, 2316). BUDGET method 2250 may send the event(s) contained in the request record(s) to the appropriate response method and may generate response records and response requests based on the RESPONSE method (block 2318). The process performed by block 2318 may satisfy the budget request by writing appropriate new response records into the VDE financial provider's secure database (block 2320). BUDGET method 2250 may then write these Budget administrative response records into an administrative object (blocks 2322, 2324), which it may then communicate back to the user node that initiated the budget request.*").[21] *See* Ex. 1219 92-94. **Additionally, Poggio discloses receiving payment validation data (*e.g.,* payment confirmation) from the payment validation system.[22]**

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[21] A POSA would have understood Ginter's disclosure of receiving an administrative

response to be a disclosure of receiving data indicating that the payment validation

system has received a request for and validated the purchase of a VDE content object.

To the extent it is argued that any further disclosure may be required, however, this

would at minimum have been obvious from Ginter's disclosure of receiving such an

administrative response in response to an administrative request. *See* Ex. 1219 94-95.

[22] A POSA would have been motivated and found it obvious to implement Ginter's

VDE environment in the manner disclosed by Poggio because Ginter expressly touts

the VDE environment's ability to be adapted to mirror traditional commercial

Claim 1	Prior Art
	Ex. 1215 **FIG. 7; 10:10-25** ("*The digital cash interface 116 awaits for an indication from the electronic banking network 118 signifying successful completion of the payment transaction (i.e., credit card or electronic funds transfer transaction). This indication is forwarded to the web server (step 712). If the payment transaction fails (714-N), the user is so informed and the purchase transaction is aborted (715). If the payment transaction was successful (714-Y), the method decrements the count of the available licenses 306 in the vending information database 110 (step 716). If the remaining number of available licenses 306 is zero (or less than zero), the method informs the vendor that additional licenses are needed (step 716). The method then proceeds to format the purchased product for transmission to the user (step 718).*"); **10:41-53**. *See* Ex. 1219 95-96.
code to control access to said at least one selected item of multimedia content on said terminal responsive to said payment validation data,	**Ginter discloses a processor (*e.g.*, CPU) implementing code (*e.g.*, software instructions utilized by the CPU) to perform functions including controlling access to the at least one selected item of multimedia content (*e.g.*, VDE content object) on the terminal (*e.g.*, electronic appliance) responsive to the payment validation data (*e.g.*, administrative response).** *See, e.g.*, Ex. 1214 FIG. 8; **ABSTRACT** ("*Electronic appliances such as computers equipped in accordance with the present invention help to ensure that information is accessed and used only in authorized ways, and maintain the integrity, availability, and/or confidentiality of the information. Such electronic appliances provide a distributed virtual distribution environment (VDE) that may enforce a secure chain of handling and control, for example, to control and/or meter or otherwise monitor use of electronically stored or disseminated information.*"); **57:18-22** ("*As mentioned above, virtual distribution environment 100 'associates' content with corresponding 'rules and controls,' and prevents the content from being used or accessed unless a set of corresponding 'rules and controls' is available.*"); **58:25-30** ("*Budget process 408 limits how much content usage is permitted. For example, budget process 408 may limit the number of times content may be accessed or copied, or it may limit the number of pages or other amount of content that can be used based on, for example, the number of dollars available in a credit account.*"); **63:34-41** ("*SPU 500 may also perform secure data management processes including governing usage of, auditing of, and where appropriate, payment for VDE objects 300 (through the use of prepayments, credits, real-time electronic debits from bank accounts and/or VDE node currency token deposit accounts). SPU 500 may*

relationships like that of Poggio, where a seller receives confirmation that a consumer

has paid for a product before providing access to the product. *See* Ex. 1219 95-96.

Claim 1	**Prior Art**
	perform other transactions related to such VDE objects 300.”); **20:23-29** (“*VDE ensures that certain prerequisites necessary for a given transaction to occur are met. This includes the secure execution of any required load modules and the availability of any required, associated data. For example, required load modules and data (e.g. in the for[m] of a method) might specify that sufficient credit from an authorized source must be confirmed as available.*”); **184:34-40** (“*The REGISTER method block 1526 may be an independent process and may be time independent. It may, for example, take a relatively long time to complete the REGISTER method (say if the VDE distributor or other participant responsible for providing registration wants to perform a credit check on the user before registering the user for this particular object).*”); **161:42-161:6** (“*Once a secure connection is established, the end user's electronic appliance may determine (e.g., based on Shipping Table 444) whether it has any administrative object(s) containing audit information that it is supposed to send to the clearinghouse (decision Block 1156). Audit information pertaining to several VDE objects 300 may be placed within the same administrative object for transmission, or different administrative objects may contain audit information about different objects. Assuming the end user's electronic appliance has at least one such administrative object to send to this particular clearinghouse ('yes' exit to decision Block 1156), the electronic appliance sends that administrative object to the clearinghouse via the now-established secure real-time communications (Block 1158). . . . The clearinghouse may receive the administrative object and process its contents to determine whether the contents are 'valid' and 'legitimate.' For example, the clearinghouse may analyze the contained audit information to determine whether it indicates misuse of the applicable VDE object 300. The clearinghouse may, as a result of this analysis, may generate one or more responsive administrative objects that it then sends to the end user's electronic appliance 600 (Block 1160).*”); **163:38-61** (“*During the same or different communications exchange, the same or different clearinghouse may handle the end user's request for additional budget and/or permission pertaining to VDE object 300. For example, the end user's electronic appliance 600 may (e.g., in response to a user input request to access a particular VDE object 300) send an administrative object to the clearinghouse requesting budgets and/or other permissions allowing access (Block 1164). As mentioned above, such requests may be transmitted in the form of one or more administrative objects, such as, for example, a single administrative object having multiple 'events' associated with multiple requested budgets and/or other permissions for the same or different VDE objects 300. The clearinghouse may upon receipt of such a request, check the end user's credit, financial records, business agreements and/or audit histories to determine whether the requested budgets and/or permissions should be given. The clearinghouse may, based on this analysis, send one or more responsive administrative objects which cause the end user's electronic appliance 600 to update its secure*

Claim 1	Prior Art
	database in response (Block 1166, 1168). This updating might, for example, comprise replacing an expired PERC 808 with a fresh one, modifying a PERC to provide additional (or lesser) rights, etc.”); **175:3-22** (“*In general, the 'use' mode of BUDGET method 2250 is invoked in response to an event relating to the use of an object or its content. The 'administrative request' mode of BUDGET method 2250 is invoked by or on behalf of the user in response to some user action that requires contact with a VDE financial provider, and basically its task is to send an administrative request to the VDE financial provider. The 'administrative response' mode of BUDGET method 2250 is performed at the VDE financial provider in response to receipt of an administrative request sent from a VDE node to the VDE financial provider by the 'administrative request' invocation of BUDGET method 2250 shown in FIG. 42b. The 'administrative response' invocation of BUDGET method 2250 results in the transmission of an administrative object from VDE financial provider to the VDE user node. Finally, the 'administrative reply' invocation of BUDGET method 2250 shown in FIG. 42d is performed at the user VDE node upon receipt of the administrative object sent by the 'administrative response' invocation of the method shown in FIG. 42c.*”); **175:47-176:1** (“*Looking at FIG. 42b, the first six steps (blocks 2280-2290) may be performed by the user VDE node in response to some user action (e.g., request to access new information, request for a new budget, etc.). This 'administrative request' invocation of BUDGET method 2250 may prime an audit trail (blocks 2280, 2282). The method may then place a request for administrative processing of an appropriate Budget onto a request queue (blocks 2284, 2286). Finally, the method may save appropriate audit trail information (blocks 2288, 2290). Sometime later, the user VDE node may prime a communications audit trail (blocks 2292, 2294), and may then write a Budget Administrative Request into an administrative object (block 2296). This step may obtain information from the secure database as needed from such sources such as, for example, Budget UDE; Budget Audit Trail UDE(s); and Budget Administrative Request Record(s) (block 2298). Block 2296 may then communicate the administrative object to a VDE financial provider, or alternatively, block 2296 may pass administrative object to a separate communications process or method that arranges for such communications to occur.*”); **289:67-290:2** (“*When the container and any transactions related to delivery have been completed, the container is transmitted across the network to the end user.*”); **209:64-66** (“*The objects may be received by the PPE 650 (e.g., by retrieval from an object repository 728 over a network or retrieved from local storage).*”); **224:66-225:8** (“*As one example, an object repository 728 storing VDE objects could be maintained at the centralized server, and each of many networked electronic appliance 600 users could access the centralized object repository over the network 672 as needed. When a user needs to access a particular VDE object 300, her electronic appli-*

Claim 1	Prior Art
	ance 600 could issue a request over network 672 to obtain a copy of the object. The 'VDE server' could deliver all or a portion of the requested object 300 in response to the request."); **312:6-9** (*"The Internet Repository 3406 VDE containers, including encrypts, selected object content as it streams out of the Repository in response to an online, user request to download an object.");* **281:7-19** (*"For example, a VDE repository (portion of a VDE repository, multiple VDE repositories, and/or providers of content to such repositories) may advertise the availability of certain types of VDE protected content by sending out email to a list of network users. If the network users have secure VDE subsystems in their electronic appliances, they may then choose to access such a repository directly, or through one or more smart agents and, using an application program for example, browse (and/or electronically search) through the offerings of VDE managed content available at the repository, download desirable VDE content containers, and make use of such containers.");* **62:64-65** (*"Secondary storage 652 may also store one or more VDE objects 300.");* **229:18-20** (*"Portable appliance 2600 may, in one embodiment, comprise means to perform substantially all of the functions of a VDE electronic appliance 600.").* See Ex. 1219 96-100. **Ginter discloses that the at least one selected item of multimedia content (*e.g.,* VDE content object) can be accessed only if the user has sufficient number of dollars in a credit account.** Ex. 1214 **20:23-29. Additionally, Ginter discloses that the payment validation data (*e.g.,* administrative response) grants additional budget to the user's credit account.** *Id.* **163:38-61.** *See* Ex. 1219 100-101.[23] **Ginter dis-**

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[23] A POSA would therefore have understood that Ginter discloses controlling access to the at least one selected item of multimedia content (*e.g.,* VDE content object) on said terminal (*e.g.,* handheld electronic appliance) responsive to said payment validation data (*e.g.,* permitting access only after the user has received an additional number of dollars via the administrative response). *See* Ex. 1219 101. Ginter at minimum renders this obvious. Ginter discloses that VDE content objects may be paid for using "real-time debits from bank accounts." *See, e.g.*, Ex. 1214 63:34-41. *See* Ex. 1219 101.

Claim 1	Prior Art
	closes that VDE content objects may be paid for using "real-time debits from bank accounts."[24] Ex. 1214 **63:34-41.** *See* Ex. 1219 101.[25]
	Poggio also discloses controlling access the at least one selected item of multimedia content (*e.g.,* vendor product) responsive to the payment validation data (*e.g.,* after receipt of payment confirmation).[26] Ex. 1215 **FIG. 7; 10:10-25** ("*The digital cash interface 116 awaits for*

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[24] A POSA would have understood that applying Ginter's teaching of requiring "that sufficient credit from an authorized source *must be confirmed as available*" before a transaction occurs, when applied to the real-time debit system also disclosed in Ginter, at minimum renders obvious controlling access to the at least one selected item of multimedia content (*e.g.,* VDE content object) responsive to Ginter's administrative response confirming that the transmitted audit information has been validated. *See, e.g.,* Ex. 1214 20:23-29. *See* Ex. 1219 101.

[25] Additionally, Poggio's teaching of allowing access to content only in response to the receipt of payment confirmation further underscores that it would have been desirable and obvious to retrieve data responsive to payment validation data, and this would additionally have been obvious from Ginter in light of the teachings of Poggio. *See, e.g.,* Ex. 1215 Fig. 7; 10:41-53. *See* Ex. 1219 101.

[26] A POSA would have been motivated and found it obvious to implement Ginter's VDE environment in the manner disclosed by Poggio because Ginter expressly touts the VDE environment's ability to be adapted to mirror traditional commercial

Claim 1	Prior Art
	an indication from the electronic banking network 118 signifying successful completion of the payment transaction (i.e., credit card or electronic funds transfer transaction). This indication is forwarded to the web server (step 712). If the payment transaction fails (714-N), the user is so informed and the purchase transaction is aborted (715). If the payment transaction was successful (714-Y), the method decrements the count of the available licenses 306 in the vending information database 110 (step 716). If the remaining number of available licenses 306 is zero (or less than zero), the method informs the vendor that additional licenses are needed (step 716). The method then proceeds to format the purchased product for transmission to the user (step 718)."); **10:41-53**. *See* Ex. 1219 101-102.
wherein said user interface is operable to enable a user to select said at least one item of multimedia content available from said non-volatile memory; and	**Ginter discloses that the user interface (*e.g.,* keyboard and/or display) is operable to enable a user to select the at least one item of multimedia content (*e.g.,* VDE content object) available from the non-volatile memory (*e.g.,* secondary storage).** Ex. 1214 **FIG. 72D; 60:31-35** ("*Electronic appliance 600 in this example may include a keyboard or keypad 612, a voice recognizer 613, and a display 614. A human user can input commands through keyboard 612 and/or voice recognizer 613, and may view information on display 614.* "); **169:51-55** ("*Generally, 'user-initiated' events are happenings attributable to a user (or a user application). A common 'user-initiated' event is a user's request (e.g., by pushing a keyboard button, or transparently using redirector 684) to access an object 300 or other VDE-protected information.*"); **177:10-18** ("*The steps shown in FIG. 43a may be, for example, performed at a user VDE node in response to some action by or on behalf of the user. For example the user may ask to access an object that has not yet been (or is not now) properly registered to her. In response to such a user request, the REGISTER method 2400 may prime a Register Audit Trail UDE (blocks 2402, 2404) before determining whether the object being requested has already been registered (decision block 2406).*"); **183:24-30** ("*The OPEN method process starts with an 'open event.' This open event may be generated by a user application, an operating system intercept or various other mechanisms for capturing or intercepting control. For example, a user application may issue a request for access to a particular content stored within the VDE container. As another example, another method may issue a command.*"); **82:32-41** ("*As one simple example, redirector 684 may intercept a 'file open' call from application 608(b), de-*

relationships like that of Poggio, where a seller receives confirmation that a consumer

has paid for a product before providing access to the product. *See* Ex. 1219 101-102.

Claim 1	Prior Art
	termine whether the file to be opened is contained within a VDE container 300, and if it is, generate appropriate VDE function call(s) to file system 687 to open the VDE container (and potentially generate events to HPE 655 and/or SPE 503 to determine the name(s) of file(s) that may be stored in a VDE object 300, establish a control structure associated with a VDE object 300, perform a registration for a VDE object 300, etc.).”); **238:50-64** (“*Other important 'pop-up' user interface 686 functions include dialogs which enable flexible browsing through libraries of properties or objects available for licensing or purchase, either from locally stored VDE protected objects and/or from one or more various, remotely located content providers. Such function may be provided either while the user's computer is connected to a remote distributor's or clearinghouse's electronic appliance 600, or by activating an electronic connection to a remote source after a choice (such as a property, a resource location, or a class of objects or resources is selected). A browsing interface can allow this electronic connection to be made automatically upon a user selection of an item, or the connection itself can be explicitly activated by the user. See id. FIG. 72D for an example of such a 'browsing' dialog.*”). *See* Ex. 1219 102-104.
wherein said user interface is operable to enable a user to access said at least one selected item of multimedia content responsive to said code to control access permitting access to said at least one selected item of multimedia	**Ginter discloses that the user interface (*e.g.,* keyboard and/or display) is operable to enable a user to access the at least one selected item of multimedia content (*e.g.,* VDE content object) responsive to code (*e.g.,* software instructions utilized by the CPU) to control access permitting access to the at least one selected item of multimedia content (*e.g.,* VDE content object).** Ex. 1214 **58:33-34** (“*Content may be supplied to the user once these processes have been successfully performed.*”); **81:46-51** (“*User Notification/Exception Interface 686 in the preferred embodiment (which may be considered part of API 682 or another application coupled to the API) provides 'pop up' windows/displays on display 614. This allows ROS 602 to communicate directly with a user without having to pass information to be communicated through applications 608.*”); **99:43-58** (“*User Notification Service Manager 740 and associated user notification exception interface ('pop up') 686 provides ROS 602 with an enhanced ability to communicate with a user of electronic appliance 600. Not all applications 608 may be designed to respond to messaging from ROS 602 passed through API 682, and it may in any event be important or desirable to give ROS 602 the ability to communicate with a user no matter what state an application is in. User notification services manager 740 and interface 686 provides ROS 602 with a mechanism to communicate directly with a user, instead of or in addition to passing a return call through API 682 and an application 608. This is similar, for example, to the ability of the Windows operating system to display a user message in a 'dialog box' that displays 'on top of' a running application irrespective of the state of the application.*”); **58:57-62** (“*Container 302 may contain information con-*

Claim 1	Prior Art
content.	*tent 304 in electronic (such as 'digital') form. Information content 304 could be the text of a novel, a picture, sound such as a musical performance or a reading, a movie or other video, computer software, or just about any other kind of electronic information you can think of.").* *See* Ex. 1219 104-105. **Ginter discloses that the multimedia content (*e.g.,* VDE content object) can be music data (*e.g.,* musical performance), movie or other video, book text, or software.** Ex. 1214 **58:57-62**. *See* Ex. 1219 105.[27] *See* Ex. 1219 105.

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[27] A POSA would have understood that supplying such content to a user, as disclosed

in Ginter, necessarily and thus inherently involves enabling the user to access the at

least one selected item of multimedia content (*e.g.,* VDE content object) using the user

interface (*e.g.,* keyboard and/or display). *See, e.g.*, Ex. 1214 58:33-34. A POSA would

have considered it at minimum obvious to arrange for the handheld multimedia

terminal (*e.g.,* handheld electronic appliance) to wait after determining that access is

permitted until an additional user selection is received at the user interface (*e.g.,*

keyboard and/or display) as confirmation that the user is situated and ready before

supplying the at least one selected item of multimedia content (*e.g.,* VDE content

object). *See* Ex. 1219 105.

Claim 5	Prior Art
A handheld multimedia terminal as claimed in claim 1,	*See* claim 1 of the '772 patent, above.
further comprising code to retrieve supplementary data via said wireless interface and output said supplementary data to said user using said display.	**Ginter discloses a processor (*e.g.*, CPU) implementing code (*e.g.*, software instructions utilized by the CPU) to perform functions including retrieving supplementary data (*e.g.*, promotional material and/or pricing information) via the wireless interface (*e.g.*, communications controller).** Ex. 1214 **FIG. 72B; 81:46-51; 237:49-60; 190:14-33; 286:57-287:4; 84:10-13**. *See* Ex. 1219 106-107. **Ginter also discloses outputting the supplementary data (*e.g.*, promotional material and/or pricing information) to the user using the display.** Ex. 1214 **FIG. 72B; FIG. 72D; 190:14-33; 58:33-34; 81:46-51; 99:43-58; 237:49-60; 238:50-64**. *See* Ex. 1219 107.

Claim 8	Prior Art
A data access terminal for controlling access to one or more content data items stored on a data carrier, the data access terminal comprising:	**Ginter discloses a data access terminal (*e.g.*, electronic appliance) for controlling access to one or more content data items (*e.g.*, VDE content object) stored on a data carrier (*e.g.*, secondary storage, such as a CD-ROM).** Ex. 1214 **FIG. 8; ABSTRACT** ("*Electronic appliances such as computers equipped in accordance with the present invention help to ensure that information is accessed and used only in authorized ways, and maintain the integrity, availability, and/or confidentiality of the information. Such electronic appliances provide a distributed virtual distribution environment (VDE) that may enforce a secure chain of handling and control, for example, to control and/or meter or otherwise monitor use of electronically stored or disseminated information.*"); **57:18-22** ("*As mentioned above, virtual distribution environment 100 'associates' content with corresponding 'rules and controls,' and prevents the content from being used or accessed unless a set of corresponding 'rules and controls' is available.*"); **58:25-30** ("*Budget process 408 limits how much content usage is permitted. For example, budget process 408 may limit the number of times content may be accessed or copied, or it may limit the number of pages or other amount of content that can be used based on, for example, the number of dollars available in a credit account.*"); **62:41-45** ("*Secondary storage 662 may comprise the same one or more non-secure secondary storage devices (such as a magnetic disk and a CD-ROM drive as one example) that electronic appliance 600*

Claim 8	Prior Art
	uses for general secondary storage functions."); **62:64-65** ("*Secondary storage 652 may also store one or more VDE objects 300.*"). *See* Ex. 1219 108. **Alternatively, Ginter also discloses a data carrier (*e.g.*, Portable Electronic Appliance ("*PEA*")) that is removable**. Ex. 1214 **FIG. 71; 229:18-20**; **230:7-19** ("*In other, enhanced examples of portable appliance 2600, any or all of the following optional components may also be included within housing 2602: . . . one or more removable/replaceable memory device(s) 2622; and one or more printing device(s) 2624. . . . Removable/replaceable memory 2622 may comprise a memory cartridge or memory medium such as a bulk storage device, for providing additional long-term or short-term storage. Memory 2622 may be easily removable from housing 2602 if desired.*"); **230:39-47** ("*Housing 2602 may be insertable into and removable from a port, slot or other receptacle provided by host 2608 so as to be physically (or otherwise operatively) connected to a computer or other electronic appliance. The portable appliance connector 2604 may be configured to allow easy removability so that appliance 2600 may be moved to another computer or other electronic appliance at a different location for a physical connection or other operative connection with that other device.*"); **230:20-29** ("*In one example embodiment, portable appliance 2600 may have the form factor of a 'smart card' (although a 'smart card' form factor may provide certain advantages, housing 2602 may have the same or different form factor as 'conventional' a smart cards). Alternatively, such a portable electronic appliance 2600 may, for example, be packaged in a PCMCIA card configuration (or the like) which is currently becoming quite popular on personal computers and is predicted to become common for desk-top computing devices and Personal Digital Assistants.*"). *See* Ex. 1219 108-109.[28]

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[28] In disclosing that the PEA comprises means to perform substantially all of the functions of an electronic appliance (which include storing VDE content objects), Ginter discloses that the PEA is also capable of storing VDE content objects. Ex. 1214 229:18-20. A POSA would at minimum have considered it obvious to use the PEA's removable/replaceable memory device in the same manner as the electronic appliance's secondary storage, including providing VDE content objects to the PEA's

Claim 8	Prior Art
	Additionally, Sato discloses accessing one or more content data items (*e.g.,* music software) on a data carrier (*e.g.*, removable IC card).[29] Ex. 1217 **¶ 9** (*"The portable music selection viewing device 70 provides a removable storage device 76 on a main body 71. This storage device 76 is a memory card similar to, for example, a magnetic card, a magnetic tape, a CD, a DVD, or an IC card. The user, after downloading the music software to the storage device (medium) 76 of the portable music selection and viewing device 70 by operating the push buttons or the like on the main body 71, can enjoy this music software on a display 70 by operating the push buttons or the like on the main body selection and viewing device 70, and can enjoy higher quality music playback by removing this storage device (medium) and inserting it into another audio unit. Further, the user can store the music software from another audio unit into the storage device 76 and enjoy music by inserting this storage unit 76 into this portable music selection and viewing device 70."*); **¶ 13** (*"A music storage device 240 connected to the music control unit 200 stores the music software. A music storage medium 250 such as a magnetic card, magnetic tape, a CD, a DVD, or a memory card such as an IC card stores the music software, and this storage medium 250 can be removed and used on other audio units."*). *See* Ex. 1219 110-111.

removable/replaceable memory device. Ex.1214 62:41-65, 230:15-18. *See* Ex. 1219 109-110.

[29] A POSA would have been motivated and found it obvious and advantageous to implement Ginter's VDE environment using Sato's teachings of a removable IC card, because, *inter alia*, Ginter's VDE environment would benefit from including additional devices onto which consumers can download content by expanding the overall user-base of the system, and protecting downloaded content using the VDE containers discussed in Ginter would ensure that content providers would be comfortable making their content available for use with removable IC cards as discussed in Sato. *See* Ex. 1219 110-111.
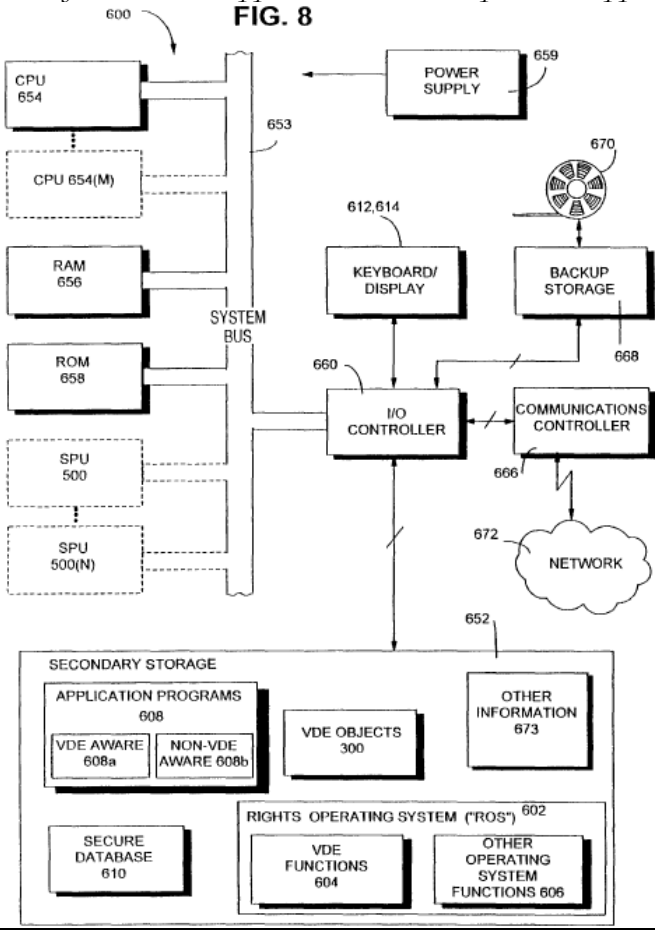
Claim 8	Prior Art
a user interface;	**Ginter discloses a user interface (*e.g.,* keyboard and display).** Ex. 1214 **60:31-35** ("*Electronic appliance 600 in this example may include a keyboard or keypad 612, a voice recognizer 613, and a display 614. A human user can input commands through keyboard 612 and/or voice recognizer 613, and may view information on display 614.*"); **169:51-55** ("*Generally, 'user-initiated' events are happenings attributable to a user (or a user application). A common 'user-initiated' event is a user's request (e.g., by pushing a keyboard button, or transparently using redirector 684) to access an object 300 or other VDE-protected information.*"). *See* Ex. 1219 111.
a data carrier interface;	**Where the data carrier is Ginter's secondary storage, Ginter discloses a data carrier interface (*e.g.,* system bus and/or I/O controller).** Ex. 1214 **FIG. 8**; **62:12-28** ("*This example of electronic appliance 600 includes a system bus 653. . . . System bus 653 may permit SPU(s) 500 to communicate with CPU(s) 654, and also may allow both the CPU(s) and the SPU(s) to communicate (e.g., over shared address and data lines) with RAM 656, ROM 658 and I/O controller 660. . . . In the example shown, I/O controller 660 is connected to secondary storage device 652, a keyboard/display 612, 614, a communications controller 666, and a backup storage device 668.*"); **62:37-40** ("*In this example, I/O controller 660 permits CPU 654 and SPU 500 to read from and write to secondary storage 662, keyboard/display 612, 614, communications controller 666, and backup storage device 668.*"). *See* Ex. 1219 111.
	Where the data carrier is Ginter's PEA,[30] Ginter discloses a data carrier interface (*e.g.,* mating connector, electronic connector bus interface, and/or system bus). Ex. 1214 **FIG. 71**; **228:39-50** ("*Portable appliance 2600 may include a portable housing 2602 that may be about the size of a credit card in one example. Housing 2602 may connect to the outside world through, for example, an electrical connector 2604 having one or more electrical contact pins (not shown). Connector 2604 may electrically connect an external bus interface 2606 internal to housing 2602 to a mating connector 2604a of a host system 2608. External bus interface 2606 may, for example, comprise a PCMCIA (or other standard) bus interface to allow portable appliance 2600 to interface with and communicate over a bus 2607 of host system 2608.*"). *See* Ex. 1219 111-112.
a program	**Ginter discloses a program store (*e.g.,* ROM 658) for storing code**

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[30] The same applies for the data carrier(s) disclosed in Sato (*e.g.,* IC card), discussed

herein. *See* Ex. 1219 111 n.1.

Claim 8	Prior Art
store storing code implementable by a processor; and	**(*e.g.,* applications) implementable by a processor (*e.g.,* CPU).** Ex. 1214 **FIG. 8**; **60:49-62** ("*The operating system 602 may also support at least one 'application' 608. Generally, 'application' 608 is hardware and/or software specific to the context of appliance 600. For example, if appliance 600 is a personal computer, then 'application' 608 could be a program loaded by the user, for instance, a word processor, a communications system or a sound recorder. If appliance 600 is a television controller box, then application 608 might be hardware or software that allows a user to order videos on demand and perform other functions such as fast forward and rewind. In this example, operating system 602 provides a standardized, well defined, generalized 'interface' that could support and work with many different 'applications' 608.*"); **63:15-25** ("*FIG. 8 shows that secondary storage 652 may also be used to store code ('application programs') providing user application(s) 608 shown in FIG. 7. FIG. 8 shows that there may be two general types of application programs 608: 'VDE aware' applications 608a, and Non-VDE aware applications 608b. VDE aware applications 608a may have been at least in part designed specifically with VDE 100 in mind to access and take detailed advantage of VDE functions 604. Because of the 'transparency' features of ROS 602, non-VDE aware applications 608b (e.g., applications not specifically designed for VDE 100) can also access and take advantage of VDE functions 604.*"); **63:8-15** ("*Portions of the elements indicated in secondary storage 652 may also be stored in ROM 658, so long as those elements do not require changes (except when ROM 658 is replaced). Portions of ROS 602 in particular may desirably be included in ROM 658 (e.g., 'bootstrap' routines, POST routines, etc. for use in establishing an operating environment for electronic appliance 600 when power is applied).*"). *See* Ex. 1219 112-113.
a processor coupled to the user interface, to the data carrier interface and to the program store for implementing the stored code, the code com-	**Ginter discloses a processor (*e.g.,* CPU) coupled to the user interface (*e.g.,* keyboard and/or display), the data carrier interface (*e.g.,* mating connector, electronic connector bus interface, system bus, and/or I/O controller), and the program store (*e.g.,* ROM 658). The processor (*e.g.,* CPU) executes code stored in the program store (*e.g.,* ROM 658).** Ex. 1214 **FIG. 8**; **62:13-17** ("*This example of electronic appliance 600 includes a system bus 653. In this example, one or more conventional general purpose central processing units ('CPUs') 654 are connected to bus 653. Bus 653 connects CPU(s) 654 to RAM 656, ROM 658, and I/O controller 660.*"); **62:25-28** ("*In the example shown, I/O controller 660 is connected to secondary storage device 652, a keyboard/display 612, 614, a communications controller 666, and a backup storage device 668.*"); **62:56-58** ("*Secondary storage 652 in this example stores code and data used by CPU 654 and/or SPU 500 to control the overall operation of electronic appliance 600.*"); **75:35-37** ("*A host processor CPU 654 may provide storage, database, and communications services.*"); **63:8-15**("*Portions of*

Claim 8	Prior Art
prising:	*the elements indicated in secondary storage 652 may also be stored in ROM 658, so long as those elements do not require changes (except when ROM 658 is replaced). Portions of ROS 602 in particular may desirably be included in ROM 658 (e.g., 'bootstrap' routines, POST routines, etc. for use in establishing an operating environment for electronic appliance 600 when power is applied).").* See Ex. 1219 113-114. FIG. 8
code to request identifier data identifying one or more content data items stored on the data carrier;	*See* claim 1, "code to request identifier data" limitation.
code to receive said identifier data;	*See* claim 1, "code to receive said identifier data" limitation.
code to present to a user via said user interface said identified one or more content data items available from the data carrier;	*See* claim 1, "code to present . . . said identified one or more items of multimedia content available" limitation.
code to receive a user selection selecting at least one of said one or more of said stored content data items;	*See* claim 1, "code to receive a user selection to select at least one of said one or more of said stored items of multimedia content" limitation.

Claim 8	Prior Art
code responsive to said user selection of said selected content data item to transmit payment data relating to payment for said selected content item for validation by a payment validation system;	*See* claim 1, "code… to transmit payment data" limitation.
code to receive payment validation data defining if said payment validation system has validated payment for said content data item; and	*See* claim 1, "code to receive payment validation data…" limitation.
code to control access to said selected content data item responsive to the payment validation data.	*See* claim 1 "code to control access" limitation.

Claim 10	Prior Art
A data access terminal as claimed in claim 8,	*See* claim 8 of the '772 patent, above.
wherein said data access terminal is integrated with a mobile commu-	**Ginter discloses that the data access terminal (*e.g.,* electronic appliance) is integrated with a mobile communications device and an audio/video player (*e.g.,* electronic appliance)**. Ex. 1214 **34:1-6**; **100:50-55**; **58:57-62**; **58:33-34**.[31] *See* Ex. 1219 116.

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[31] A POSA would have understood that a hand-held electronic appliance, such as a personal digital assistant, as discussed in Ginter, is a mobile communications device. Additionally, since Ginter teaches that an electronic appliance can play "a movie or other video," a POSA would have understood that the access terminal (*e.g.,* electronic appliance) is, or at a minimum obviously can be, an audio/video player. Ex. 1214 58:57-62; 58:33-34. *See* Ex. 1219 116.

Claim 10	Prior Art
nications device and audio/video player.	**Sato also discloses that the data access terminal is integrated with a mobile communications device (*e.g.,* mobile phone).**[32] Ex. 1217 ¶ **3**; ¶ **10**. *See* Ex. 1219 116.

V. CONCLUSION

For at least the reasons above, Petitioner requests institution of a CBM Patent review of the '772 patent because this Petition would, if unrebutted, demonstrate that it is more likely than not that at least one of the claims challenged in this Petition is invalid. It is therefore respectfully requested that this Petition be granted and claims 1, 5, 8, and 10 of the '772 patent be judged invalid. If there are any questions, counsel for the Petitioner may be contacted at the telephone number below. Please direct all correspondence to the lead and back-up counsel for Petitioner designated below at

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[32] A POSA would have been motivated and found it obvious and advantageous to implement Ginter's VDE environment using a mobile phone as taught in Sato, because, *inter alia*, Ginter's VDE environment would benefit from including additional devices onto which consumers can download content by expanding the overall user-base of the system and from the added flexibility of allowing users to download content wirelessly, regardless of their physical location, and protecting downloaded content using the VDE containers discussed in Ginter would ensure that content providers would be comfortable making their content available for use with removable IC cards, as discussed in Sato. *See* Ex. 1219 116.

the service address as specified below.

Pursuant to §§ 40.304 and 40.302(b), Petitioner, Petitioner's real party in inter-

est, and Petitioner's privies are not estopped from challenging the claims on the

grounds identified in this Petition. As identified in the attached Certificate of Service

and in accordance §§ 1.33(c), 42.205, and 42.300, a copy of the present Request, in its

entirety, is being served on the patent owner at the correspondence address of record

for the subject patent as reflected in the publicly-available records of the United States

Patent and Trademark Office as designated in the Office's Patent Application Infor-

mation Retrieval system. The Director is hereby authorized to charge any deficiency in

the fees filed, asserted to be filed or which should have been filed herewith (or with

any paper hereafter filed in this proceeding by this firm) to our Deposit Account No.

061075, under Order No. 104677-5008-818.

Respectfully submitted
By: /J. Steven Baughman/   November 25, 2014

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor: Racz et al.	§	Attorney Docket No.:
United States Patent No.: 8,336,772	§	104677-5008-818
Formerly Application No.: 13/212,047	§	Customer No. 28120
Issue Date: December 25, 2012	§	
Filing Date: August 17, 2011	§	Petitioner: Apple Inc.
Former Group Art Unit: 2887	§	
Former Examiner: Thien M. Le	§	

For: Data Storage and Access Systems

MAIL STOP PATENT BOARD
Patent Trial and Appeal Board
United States Patent and Trademark Office
Post Office Box 1450
Alexandria, Virginia 22313-1450

CERTIFICATE OF SERVICE

It is certified that a copy of the following documents has been served in its en-

tirety on the patent owner as provided in 37 CFR § 42.205:

1. Petition For Covered Business Method Patent Review of United States Pa-

tent No. 8,336,772 Pursuant to 35 U.S.C. § 321, 37 C.F.R. § 42.304 and accompanying

exhibits:

EXHIBIT LIST	
1201	U.S. Patent No. 8,336,772
1202	Plaintiffs' First Amended Complaint
1203	U.S. Patent No. 5,925,127
1204	U.S. Patent No. 5,940,805

EXHIBIT LIST	
1205	Russell Housley and Jan Dolphin, "Metering: A Pre-pay Technique," Storage and Retrieval for Image and Video Databases V, Conference Volume 3022, 527 (January 15, 1997)
1206	U.S. Patent No. 4,999,806
1207	U.S. Patent No. 5,675,734
1208	U.S. Patent No. 4,878,245
1209	File History for U.S. Patent No. 8,336,772
1210	U.S. Patent No. 7,942,317
1211	U.S. Patent No. 5,103,392
1212	U.S. Patent No. 5,530,235
1213	U.S. Patent No. 5,629,980
1214	U.S. Patent No. 5,915,019
1215	European Patent Application, Publication No. EP0809221A2
1216	International Publication No. WO 99/43136
1217	JP Patent Application Publication No. H11-164058 (translation)
1218	Eberhard von Faber, Robert Hammelrath, and Frank-Peter Heider, "The Secure Distribution of Digital Contents," IEEE (1997)
1219	Declaration of Anthony J. Wechselberger In Support of Apple Inc.'s Petition for Covered Business Method Patent Review
1220	U.S. Patent No. 8,033,458
1221	Declaration of Michael P. Duffey In Support of Apple Inc.'s Petition for Covered Business Method Patent Review
1222	Declaration of Megan F. Raymond In Support of Apple Inc.'s Petition for Covered Business Method Patent Review
1223	Claim Construction Memorandum Opinion from Smartflash LLC v. Apple Inc., No. 6:13cv447 (Dkt. 229)

EXHIBIT LIST	
1224	File History for U.S. Patent No. 8,061,598
1225	U.S. Patent No. 4,337,483
1226	U.S. Patent No. 7,725,375
1227	International Publication No. WO 95/34857
1228	JP Patent Application Publication No. H10-269289 (translation)
1229	File History for U.S. Patent No. 7,942,317
1230	File History for U.S. Patent No. 8,033,458
1231	U.S. Patent No. 8,061,598
1232	U.S. Patent No. 8,118,221
1233	File History for U.S. Patent No. 8,118,221
1234	U.S. Patent No. 7,334,720
1235	File History for U.S. Patent No. 7,334,720
1236	U.S. Patent No. 5,646,992

The copy has been served on November 25, 2014 by causing the aforementioned documents to be deposited in the United States Postal Service as Express Mail postage pre-paid in an envelope addressed to:

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Respectfully submitted,

ROPES & GRAY LLP

By <u>/Megan Raymond /</u>
Megan Raymond