

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

FACEBOOK, INC. and INSTAGRAM LLC,
PETITIONERS

V.

SKKY, LLC
PATENT OWNER

CASE CBM2016-00091
PATENT 9,037,502

PATENT OWNER'S PRELIMINARY RESPONSE

TABLE OF CONTENTS

	<u>Page</u>
I. Summary of Preliminary Response.....	1
II. Factual Background of the '502 Patent.....	1
III. The '502 Patent is not a Covered Business Method Patent.	5
A. Claim 1 of the '502 patent is not directed to a financial product or service.	6
1. Covered Business Method eligibility.	6
2. Claim 1 of the '502 patent is not eligible for CBM review.	10
B. Claim 1 claims a technological invention, solving a technical problem with a technical solution.	13
IV. Claim Construction.....	19
V. Petitioners Have Not Proven That One Or More Claims Of The '502 Patent Are More Likely Than Not Unpatentable Under 35 U.S.C. § 101.....	20
A. The '502 patent does not claim an abstract idea, law of nature, or natural phenomena.	22
B. The '502 patent claims an inventive concept.....	29
VI. Petitioners Have Not Proven That One Or More Claims Of The '502 Patent Are More Likely Than Not Unpatentable Under 35 U.S.C. § 112.....	34
A. The claims of the '502 patent encompass what the inventors regard as their invention.....	35
1. The “regards as” clause.....	35
2. Petitioners failed to prove that the claims of the '502 patent are more likely than not to fail to comply with the “regards as” clause.	37
B. The claims of the '502 patent are adequately described.....	41
1. The written description requirement.....	41
2. Petitioners failed to prove that the claims of the '502 patent are more likely than not to fail to comply with the written description requirement.....	42
VII. Conclusion.....	46

TABLE OF AUTHORITIES

	<u>Page</u>
Cases	
<i>Alcon Research Ltd. v. Barr Labs., Inc.</i> , 745 F.3d 1180 (Fed. Cir. 2014)	42
<i>Alice Corp. Pty. Ltd. v. CLS Bank Int’l</i> , 134 S. Ct. 2347 (2014)	20, 21, 22, 23, 27, 29, 32, 33, 34
<i>Allen Eng’g Corp. v. Bartell Indus., Inc.</i> , 299 F.3d 1336 (Fed. Cir. 2002)	37, 38
<i>Ancora Techs. v. Apple, Inc.</i> , 744 F.3d 732 (Fed. Cir. 2014).....	36, 37, 38
<i>Apple, Inc. v. ContentGuard Holdings, Inc.</i> , CBM2015-00046, Paper 12 (PTAB June 3, 2015)	18
<i>Ariad Pharms., Inc. v. Eli Lilly & Co.</i> , 598 F.3d 1336 (Fed. Cir. 2010)	41
<i>Ass’n for Molecular Pathology v. Myriad Genetics, Inc.</i> , 133 S. Ct. 2107 (2012)	20
<i>Bamberg v. Dalvey</i> , 815 F.3d 793 (Fed. Cir 2016).....	45
<i>BASCOM Global Internet Servs. v. AT&T Mobility LLC</i> , 2016 U.S. App. LEXIS 11687 (Fed. Cir. June 27, 2016)	30, 31, 32, 33
<i>Bilski v. Kappos</i> , 561 U.S. 593 (2010)	30
<i>Boston Sci. Corp. v. Johnson & Johnson</i> , 647 F.3d 1333 (Fed. Cir. 2011)	41
<i>CoreLogic, Inc. v. Boundary Solutions, Inc.</i> , CBM2016-00018, Paper 9 (PTAB May 24, 2016)	7, 11
<i>DDR Holdings, LLC v. Hotels.com, L.P.</i> , 773 F.3d 1245 (Fed. Cir. 2014)	22, 23, 24

<i>Diamond v. Diehr</i> , 450 U.S. 175 (1981)	21, 24, 27
<i>Emnos USA Corp. v. Dunnhumby Ltd.</i> , CBM2015-00116, Paper 8 (PTAB Nov. 10, 2015)	18
<i>Enfish, LLC v. Microsoft Corp.</i> , 822 F.3d 1327 (Fed. Cir. 2016)	23, 24, 25, 26, 27, 29
<i>Enzo Biochem, Inc. v. Gen-Probe Inc.</i> , 323 F.3d 956 (Fed. Cir. 2002).....	42
<i>Experian Mktg. Sols., Inc. v. RPost Commc'ns Ltd.</i> , CBM2014-00010, Paper 20 (PTAB Apr. 22, 2014)	18
<i>Google Inc. v. At Home Bondholders' Liquidating Trust</i> , CBM2016-0036, Paper 12 (PTAB Aug. 22, 2016).....	14, 18
<i>Google Inc. v. SimpleAir, Inc.</i> , CBM2015-00019, Paper 11 (PTAB May 19, 2014)	5
<i>Great West Cas. Co. v. Intellectual Ventures II LLC</i> , CBM2015-00171, Paper 10 (PTAB Feb. 9, 2016)	6, 8, 9, 11, 12, 13
<i>ICU Med., Inc. v. Alaris Med. Sys.</i> , 558 F.3d 1368 (Fed. Cir. 2009)	44
<i>In re Conley</i> , 490 F.2d 972 (CCPA 1974)	35, 36
<i>In re Cormany</i> , 476 F.2d 998 (CCPA 1973)	36
<i>In re Prater</i> , 415 F.2d 1392 (CCPA 1969)	36
<i>Internet Patents Corp. v. Active Network, Inc.</i> , 790 F.3d 1343 (Fed. Cir. 2015)	23
<i>J.P. Morgan Chase & Co. v. Intellectual Ventures II</i> , CBM2014-00160, Paper 11 (PTAB Jan. 29, 2015)	5, 7, 13
<i>KSR Int'l Co. v. Teleflex Inc.</i> , 550 U.S. 398 (2007)	21, 28

<i>LizardTech, Inc. v. Earth Resource Mapping, Inc.</i> , 424 F.3d 1336 (Fed. Cir. 2005)	42
<i>Mayo Collaborative Servs. v. Prometheus Labs., Inc.</i> , 132 S. Ct. 1289 (2012)	21, 22, 28, 29, 30, 32
<i>McRo, Inc. v. Bandai Namco Games Am. Inc.</i> , 2016 U.S. App. LEXIS 16703 (Sept. 13, 2016).....	27, 34
<i>Old Republic Gen. Ins. Group, Inc.</i> , CBM2015-00184, Paper 7 (PTAB Apr. 15, 2016)	14, 18
<i>Par Pharm., Inc. v. Jazx Pharms., Inc.</i> , CBM2014-00149, Paper 12 (PTAB Jan. 13, 2015)	7, 9
<i>Park v. Booth</i> , 102 U.S. 96 (1880)	21, 28
<i>PNC Financial Servs. Group, Inc. v. Intellectual Ventures I, LLC</i> , CBM2014-00032, Paper 13 (PTAB May 22, 2014)	8, 12
<i>Qualtrics, LLC v. OpinionLab, Inc.</i> , CBM2015-00164, Paper 8 (PTAB Feb. 3, 2016)	8, 9, 12, 13
<i>Salesforce.com, Inc. v. Application in Internet Time LLC</i> , CBM 2014-00162.....	8, 11
<i>ServiceNow Inc. v. Hewlett-Packard, Co.</i> , CBM2015-00108, paper 10 (PTAB Oct. 7, 2015)	7, 9, 12
<i>Solomon v. Kimberly-Clark Corp.</i> , 216 F.3d 1372 (Fed. Cir. 2000)	35
<i>Streck, Inc. v. Research & Diagnostic Sys.</i> , 665 F.3d 1269 (Fed. Cir. 2012)	42
<i>Thorner v. Sony Computer Ent. Am. LLC</i> , 669 F.3d 1362 (Fed. Cir. 2012)	43
<i>TIP Sys., LLC v. Phillips & Brooks/ Gladwin, Inc.</i> , 529 F.3d 1364 (Fed. Cir. 2008)	7, 12
<i>Ultramercial, Inc. v. Hulu, LLC</i> , 772 F.3d 709 (Fed. Cir. 2014).....	22, 26

Statutes

35 U.S.C. § 101.....	1, 20, 22, 24, 27, 29, 30, 33, 34, 47
35 U.S.C. § 103.....	14, 31, 33
35 U.S.C. § 112.....	1, 34, 35, 36, 41, 46, 47
35 U.S.C. § 112(a)	35, 41
35 U.S.C. § 112(b).....	35, 41
35 U.S.C. § 324 (a)	35, 46
America Invents Act § 18(d)(1)	5, 6, 13, 46

Other Authorities

37 C.F.R. § 42.207	5
37 C.F.R. § 42.300(b)	20
37 C.F.R. § 42.301	7
37 C.F.R. § 42.301(a).....	13
37 C.F.R. § 42.301(b)	13, 14
157 Cong. Rec. S5441 (Sept. 8, 2011)	8
77 Fed. Reg. 48,7343, 48,735 (Aug. 14, 2012).....	7

LIST OF EXHIBITS

Ex. No.	Title of Document
2001	Statutory Disclaimer Under 35 U.S.C. § 253(a) and C.F.R. §1.321(a)

I. Summary of Preliminary Response.

On June 15, 2016, Petitioners Facebook, Inc. and Instagram, LLC submitted a Petition requesting that the Board conduct Covered Business Method (“CBM”) review of U.S. Patent No. 9,037,502 (“the ’502 patent”). Institution of CBM review should be denied for at least three reasons:

1) The ’502 patent does not claim 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, and thus does not qualify for CBM review;

2) Petitioners have not demonstrated that the claims of the ’502 patent are more likely than not unpatentable under 35 U.S.C. § 101; and

3) Petitioners have not demonstrated that the claims of the ’502 patent are more likely than not unpatentable under 35 U.S.C. § 112.

For these reasons, discussed in more detail below, the Board should decline to institute CBM proceedings for the ’502 patent and reject the Petition.

II. Factual Background of the ’502 Patent.

The ’502 patent, having a priority date of June 27, 2001, generally claims an improved method for delivering digital audio and/or visual files from a server to cellular phones with a particular structure. Ex. 1001 33:2-4. The ’502 patent has only one independent claim, claim 1. Claim 1 reads:

A method for wirelessly delivering one or more digital audio and/or visual files from one or more servers to one or more cell phones comprising:

storing a library of compressed digital audio and/or visual files on one or more servers;

providing to a cell phone a representation of at least a portion of the library of compressed digital audio and/or visual files;

receiving a request from the cell phone for at least one of the compressed digital audio and/or visual files stored on the one or more servers,

providing the one or more requested compressed digital audio and/or visual files to the cell phone and wherein the cell phone comprises a receiver and one or more processors including a digital signal processor and is configured for receiving and processing files transmitted by orthogonal frequency-division multiplex modulation;

tracking the selection of the requested compressed digital audio and/or visual files.

Ex. 1001, 33:2-22.

As described by the claims, the claimed cellular phone must contain a receiver and one or more processors including at least one digital signal processor and must be configured to receive and process files transmitted by orthogonal frequency-division multiplex modulation (also known as “OFDM”). Ex. 33:16-20. In other words, the claimed cellular phone is not just any cellular phone, but a novel, non-obvious cellular phone created by the inventors of the '502 patent over 15 years ago.

The '502 patent was invented by two of Skky LLC's cofounders, Mr. John Mikkelsen and Dr. Robert Freidson, and is a continuation of U.S. Patent No. 7,548,875¹ (the "875 patent"). Mr. Mikkelsen and Dr. Freidson worked together in the early 2000s to develop and patent a means to transmit high quality audio and/or visual files to mobile devices. The two inventors were uniquely positioned to design the invention described in the '875 and '502 patents.

Mr. Mikkelsen's background is in the entertainment industry. As part of his work, he created high quality sound clips that sounded like songs played on the radio. Mr. Mikkelsen then used those sound clips to replace the normal alerts, consisting of simple chimes and beeps, on his computer. As the age of cellular phones was just dawning in the late 1990s, Mr. Mikkelsen believed that cellular phone users would want to wirelessly receive and play high quality audio and/or visual files, such as his sound clips, on their cellular phones.

The missing piece to Mr. Mikkelsen's idea came from his introduction to Dr. Robert Freidson. Dr. Freidson possesses a Ph.D. in computer science and mathematics from Steklov Mathematical Institute in St. Petersburg, Russia. He is also the inventor on several patents related to telecommunications industry. Dr. Freidson is currently a mathematics professor at St. Petersburg Electrical Engineering

¹ The claims of the '875 patent were found to be invalid after *inter partes* review proceedings. The final written decision in that case is currently on appeal to the Federal Circuit.

University and serves as the chairman of the Russian National Research Center on computer science. Dr. Freidson possesses extensive experience in specialized wireless transmission and telecommunications. Dr. Freidson provided the technical expertise relating to wireless delivery to cellular devices and the playback of high quality audio and visual files on those devices.

Together, the two inventors devised the invention capable of wirelessly receiving and then playing back high quality audio and/or visual files, such as Mr. Mikkelsen's sound clips. They did so in the early 2000s, long before smartphones existed, let alone the iPhones and Galaxies of today. Mr. Mikkelsen and Dr. Freidson then applied for the '875 patent, encompassing their invention.

The '875 patent issued on June 16, 2009 after a lengthy prosecution process. The '502 patent was also filed in 2009, with a priority date reaching back to June 27, 2001. Documentation from the prosecution of the '875 patent was submitted during the prosecution of the '502 patent, including a declaration from Dr. Freidson describing his efforts in creating a prototype device encompassing the invention of the '875 patent. Ex. 1023; Ex. 1024 at 13; Ex. 1030 at 3. The '502 patent issued on May 19, 2015. Subsequently, on September 14, 2016, Patent Owner filed a disclaimer, disclaiming claims 6 and 8-11 of the '502 patent. Independent claim 1 and dependent claims 2-5 and 7 remain at issue here. Ex. 2001.

III. The '502 Patent is not a Covered Business Method Patent.

The Petition can be rejected on its face because the '502 patent is not a CBM patent. To qualify for CBM review, a patent must “claim 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.” America Invents Act (“A.I.A.”) § 18(d)(1). The '502 patent contains no such claims, and thus is not eligible for CBM review. *See J.P. Morgan Chase & Co. v. Intellectual Ventures II*, CBM2014-00160, Paper 11 at 5 (PTAB Jan. 29, 2015) (“the Board may institute a transitional proceeding *only* for a patent that is a CBM patent”) (emphasis added).

A patent owner may file a statutory disclaimer along with its preliminary response in order to disclaim one or more claims in the challenged patent. 37 C.F.R. § 42.207. “No post-grant review will be instituted based on disclaimed claims.” *Id.* *See also Google Inc. v. SimpleAir, Inc.*, CBM2015-00019, Paper 11 at 5 (PTAB May 19, 2014) (“Our rules permit a patent owner to file a statutory disclaimer with its preliminary response and no post-grant review will be instituted based on the disclaimed claims.”) (citations omitted). This is because “the decision whether to institute a covered business method patent review is based on the ‘claims of the patent as they exist at the time of the decision,’ not as they may have existed at some previous time.” *Google*, CBM2015-00019, Paper 11 at 5.

Here, Patent Owner has disclaimed claims 6 and 8-11 of the '502 patent. Ex. 2001. Petitioners devote the majority of their briefing to arguing that claims 6 and 8-11 are financial in nature and thus subject the '502 patent to CBM review. For the purpose of determining whether or not to institute CBM proceedings, however, disclaimed claims are treated “as never having existed.” *Great West Cas. Co. v. Intellectual Ventures II LLC*, CBM2015-00171, Paper 10 at 7 (PTAB Feb. 9, 2016). Accordingly, Petitioners’ arguments regarding these claims are irrelevant to the Board’s determination. Only Petitioners’ arguments regarding claim 1 remain. Because, Petitioners make no argument that dependent claims 2-5, and 7 may allegedly serve as a basis for instituting a CBM review, they are irrelevant to the Board’s institution analysis.

A. Claim 1 of the '502 patent is not directed to a financial product or service.

Because claim 1 is not directed to a financial product or service, the '502 patent is not subject to CBM review. For this reason, the Petition should be denied.

1. Covered Business Method eligibility.

To determine if a patent is eligible for CBM review, the Board looks to what the patent *claims*. This is made clear by both the relevant statute and federal regulation. *See* A.I.A. § 18(d)(1) (“‘covered business method patent’ means 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”) (emphasis added); 37 C.F.R. § 42.301 (same). The claims are in contrast to the specification, which may contain additional subject matter that is not actually *claimed* by the patent. *TIP Sys., LLC v. Phillips & Brooks/Gladwin, Inc.*, 529 F.3d 1364, 1373 (Fed. Cir. 2008) (“Our precedent is replete with examples of subject matter that is included in the specification, but is not claimed.”).

Indeed, the Board has consistently held that the focus is on the claims to resolve an institution decision. *E.g., CoreLogic, Inc. v. Boundary Solutions, Inc.*, CBM2016-00018, Paper 9 at 6 (PTAB May 24, 2016). *See also J.P Morgan Chase*, CBM 2014-00160, Paper 11 at 11 (“for purposes of determining whether a patent is eligible for review as a CBM patent, we focus on the claims”); *Par Pharm., Inc. v. Jazz Pharms., Inc.*, CBM2014-00149, Paper 12 at 9 (PTAB Jan. 13, 2015) (“In making this determination, our focus is solely on the claims.”). The Board’s focus on the claims is rooted in the legislative history of the America Invents Act, which “explains that the definition of covered business method patent was drafted to encompass patents *claiming* activities that are financial in nature, incidental to a financial activity or complementary to a financial activity.” *ServiceNow Inc. v. Hewlett-Packard, Co.*, CBM2015-00108, paper 10, (PTAB Oct. 7, 2015) (citing Transition Program for Covered Business Method Patents—Definitions of Covered Business Method Patent and Technological Invention; Final Rule, 77 Fed. Reg. 48,7343, 48,735 (Aug. 14, 2012)).

Reliance on the specification alone is not enough—the petitioner must show that the claims themselves are CBM eligible. *Salesforce.com, Inc. v. Application in Internet Time LLC*, CBM 2014-00162, Paper 11, at 10 (PTAB Feb. 2, 2015)(“Petitioner’s argument fails to address the language of the claims, which is the focus of our inquiry . . . Petitioner’s contentions based on the written description alone do not show that the ’111 patent *claims* a method or apparatus ‘for performing data processing or other operations used in the practice, administration, or management of a financial product or service’ or *claims* an activity that is ‘financial in nature, incidental to a financial activity or complementary to a financial activity.’”)(emphasis in original); *Great West Cas.*, CBM 2015-00171, Paper 10 at 13 (“These disclosures, however, are but a small portion of the Specification, and in any case, Petitioner has not shown how they inform our analysis of a specific claim limitation of claims 11-20, as is required to make a determination that the ’177 patent is a covered business method patent.”).

CBM review “was not meant to be applied ‘to technologies common in business environments across sectors and that have no particular relation to the financial services sector, such as computers, communications networks, and business software.’” *Qualtrics, LLC v. OpinionLab, Inc.*, CBM2015-00164, Paper 8 at 5 (PTAB Feb. 3, 2016) (citing 157 Cong. Rec. S5441 (Sept. 8, 2011) (statement of Sen. Leahy)). Instead, the claim language must be related to financial products or services (how money is used or handled) particularly, not generally. See *PNC Financial Servs. Group*,

Inc. v. Intellectual Ventures I, LLC, CBM2014-00032, Paper 13 at 10 (PTAB May 22, 2014) (claims that are “general utility not specific to any application” do not subject the patent to CBM review); *Great West Cas.*, CBM 2015-00171, Paper 10 at 10-11 (after determining that “finance-related” means “related to how money is used or handled,” finding that the “only potential commerce related example” required “several leaps of logic in order to relate it to how money is used or handled” and thus the claims were not “finance-related on their face”).

Accordingly, to institute CBM proceedings, the petitioner must “analyze the claim language, in detail and in context, to explain how the claim language recites” a financial purpose. *Par Pharm.*, CBM2014-00149, Paper 12 at 12. Absent such a showing, a petitioner’s claim is merely conclusory and does not support institution of CBM proceedings. *Id.* Even if the specification does disclose financial-related embodiments, without a tie to the claims themselves, such disclosures are just general examples, and do not render the patent CBM eligible. *ServiceNow*, CBM2015-00108, Paper 10 at 15 (denying institution of CBM review noting that while the only embodiment disclosed in the specification related to the use of an ATM network, the claims were directed to “general applicability for fault analysis” and thus were non-financial in nature); *Qualtrics*, CBM2015-00164, Paper 8 at 6 (denying institution of CBM review because potential financial uses in specification were “purely *exemplary*”) (emphasis in original); *Great West Cas.*, CBM 2015-00171, Paper 10 at 12 (because

financial related examples in specification were “merely non-limiting examples of otherwise general content” institution of CBM review was inappropriate).

2. Claim 1 of the '502 patent is not eligible for CBM review.

Here, focused on the language of claim 1, it is clear that the claim is not specifically directed to a financial product or service. Claim 1 reads:

A method for wirelessly delivering one or more digital audio and/or visual files from one or more servers to one or more cell phones comprising:

storing a library of compressed digital audio and/or visual files on one or more servers;

providing to a cell phone a representation of at least a portion of the library of compressed digital audio and/or visual files;

receiving a request from the cell phone for at least one of the compressed digital audio and/or visual files stored on the one or more servers,

providing the one or more requested compressed digital audio and/or visual files to the cell phone and wherein the cell phone comprises a receiver and one or more processors including a digital signal processor and is configured for receiving and processing files transmitted by orthogonal frequency-division multiplex modulation;

tracking the selection of the requested compressed digital audio and/or visual files.

Ex. 1001, 33:2-22. Petitioners argue, in a single paragraph, that the final element of the claim, “tracking the selection of the requested compressed digital audio and/or visual files,” “has a financial purpose.” Pet. at 6. For support, Petitioners do not point to the claim language itself as claiming the exchange of money or financial purpose.

Rather, Petitioners cite to two short passages in the specification relating to royalty payments. *Id.* The Board has found that such an overbroad application of examples from the specification is insufficient to support institution of CBM review.

Salesforce.com, CBM 2014-00162, Paper 11 at 10; *Great West Cas.*, CBM 2015-00171, Paper 10 at 13.

For example, in *CoreLogic*, the petition was deficient because it failed to identify any limitation in any claim that related “to a financial activity in any way.” CBM2016-00018, Paper 9 at 9. Although the petitioner attempted to rely on portions of the specification for support, the petition did not tie those disclosures to the claims. *Id.* (“CoreLogic fails to address how these disclosures relate directly to, or meaningfully informs our analysis of, the language of the claims”). By relying on the specification, and ignoring the disclosure of the claims themselves, the petitioner at best “established that the claimed methods *could* be used to generate revenue in a number of ways, even though the language of the claims does not require any exchange of money or other financially related step.” *Id.* at 10. This was insufficient to institute CBM review, and the petition was rejected. *Id.* at 14.

Here, Petitioners attempt to do the same but, as in *CoreLogic*, Petitioners do not point to claim language that require any exchange of money or other financial relationship. Instead, Petitioners devote only a single paragraph of argument in support of their contention that claim one qualifies for CBM review. Like in *CoreLogic*,

Petitioners rely only on disclosures from the specification, untethered to the language of the claims. The specification, however, may contain disclosure beyond what is claimed by the patent. *TIP Sys.*, 529 F.3d at 1373. The specification simply discloses examples of potential embodiments to which the claims may be generally applied. This is insufficient to institute CBM proceedings. *E.g., ServiceNow*, CBM2015-00108, Paper 10 at 15.

While the “tracking” in claim 1 *could* feasibly be used to determine a royalty, one theoretical use is not enough to justify institution of CBM review. *Qualtrics*, CBM2015-00164, Paper 8 at 6; *Great West Cas.*, CBM 2015-00171, Paper 10 at 12. Tracking is a term of general applicability, and could be applied in a number of contexts. The ’502 patent’s specification indicates that tracking function can accomplish tasks not related to finances, including “allowing a record to be kept as to which music files have been downloaded and stored on the electronic device” Ex. 1001, 6:59-61. The specification is also clear that the invention also encompasses “non copyright registered personal recordings (e.g., personal sound recordings, family photos, home movies, etc.),” the transmission and delivery of which do not have a financial purpose. *Id.* 1:66-2:1. It is irrelevant that the specification also indicates that, “in addition” to these applications, the tracking feature may also be used in the calculation of a royalty fee. *Id.* 6:59. *See PNC Financial Servs. Group*, CBM2014-00032, Paper 13 at 10 (PTAB May 22, 2014) (claims of “general utility not specific to any

application” do not subject the patent to CBM review). Indeed, CBM review was not designed to encompass “technologies common in business environments across sectors and that have no particular relation to the financial services sector.” *Qualtrics*, CBM2015-00164, Paper 8 at 5 (citations omitted). Petitioners do not, and cannot, point to any language from the claim that is specifically financial-related. The examples from the specification relating to royalties that Petitioners do rely on are exactly that—exemplary. Such “non-limiting examples of otherwise general content” do not qualify for CBM review. *Great West Cas.*, CBM 2015-00171, Paper 10 at 12.

The Board may only institute CBM review “for a patent that is a CBM patent.” *J.P. Morgan Chase*, CBM 2014-00160, Paper 11 at 5. Because the claims of the ’502 patent are not related to performing data processing or other operations used in the practice, administration, or management of a financial product or service, they are not CBM eligible. Petitioners point to nothing demonstrating that any language of the claims is specifically requiring financial activity. Thus, for all these reasons, the ’502 patent is not subject to CBM review and the Petition should be denied.

B. Claim 1 claims a technological invention, solving a technical problem with a technical solution.

The AIA excludes “patents for technological inventions” from CBM review. AIA § 18(d)(1); 37 C.F.R. § 42.301(a). Whether or not a patent claims a technological invention is “determined on a case-by-case basis.” 37 C.F.R. § 42.301(b). In making this determination, the Board considers “whether the claimed subject matter as a

whole recites a technological feature that is novel and unobvious over the prior art; and solves a technical problem using a technical solution.” *Id.* CBM analysis is not the same as obviousness analysis under 35 U.S.C. § 103. Rather than evaluate the claim element by element, as Petitioners do here, the claims are viewed as a whole, in context. *Old Republic Gen. Ins. Group, Inc.*, CBM2015-00184, Paper 7 at 7 (PTAB Apr. 15, 2016) (noting that petition was deficient because “Petitioner focuses on the individual components of the ’002 patent, without analyzing how each claim of the ’002 patent combines these individual components into an ordered whole”); *Google Inc. v. At Home Bondholders’ Liquidating Trust*, CBM2016-0036, Paper 12 at 8-9 (PTAB Aug. 22, 2016) (rejecting the petitioner’s arguments as “unpersuasive, because they focus on the individual features of the claims, rather than on the claims as a whole.”). Accordingly, it is not enough to for Petitioners to “merely point[] out that the claimed functions and technology were independently known in the art. . . .” *Google*, CBM2016-0036, Paper 12 at 6.

The claims of the ’502 patent address at least three technological problems with technical solutions. First, the claims solve the problem of transmitting compressed audio and/or visual files to a cellular phone by teaching the use of OFDM. Second, the claims as solve the problem of playing these compressed audio and/or digital files by way of transmitting the files to a cellular phone with a particular structure. Finally, solves the problem of allowing a user to select a file for transmission by providing a

representation of a stored library to the user's phone. For all these reasons, the '502 patent claims a technological invention and thus CBM review should be denied.

Claim 1 discloses "a method for wirelessly delivering one or more digital audio and/or visual files from one or more servers to one or more cell phones." Ex. 1001 33:2-4. In so doing, the '502 patent addresses a number of technical problems with technical solutions. For example, claim 1 solves the problem of also teaches providing a compressed audio and/or visual file to a cellular phone. The patent explains that at the time of invention, only "conventional ring tones or musical chimes used to ring cellular phones currently on the market" were available. *Id.* 2:26-27.

The '502 patent accomplishes this task by receiving a request for a particular audio and/or digital file sent from the cellular phone. *Id.* 33:11-13. Once the request is received, the requested file is transmitted to the cellular phone using a particular transmission scheme—OFDM. *Id.* 33:14-20. The use of OFDM provides a number of benefits, such as providing enough speed to transmit the compressed audio and/or visual file. *Id.* 16:53-54 ("The transmission method is used to provide enough speed for the data transmission."). Other benefits of using OFDM for transmission include:

- 1) the modulation can be made robust to Inter-Symbol Interference (ISI) by increasing symbol size; 2) the modulation can be made robust to impulse noise by increasing symbol size; 3) for each individual sub-channel, the channel's response could be considered essentially flat, minimizing the need for channel equalization; and 4) different encoding schemes could be used for different

sub-channels, for accommodating frequency-selective channel distortions.

Id. 16:65-17:6. Thus, claim 1 of the '502 patent addresses a particular technical problem—providing an audio and/or visual file from a library on a server to a cellular phone—with a technical solution—transmitting the file using OFDM to the cellular phone.

The '502 patent solves the technical problem of providing these audio and/or visual files to a cellular phone that can receive and play them by claiming a cellular phone consists of a particular structure. This structure solves the problem of allowing the phone to play back a compressed digital audio and/or visual file. As the specification of the '502 patent notes, at the time of invention, cellular phones could “only be programed to only play music (such as conventional MP3 type phones) or deliver ‘ring tones’ with an electronic chime or ring tone rather than an actual recorded song, human voice, or musical composition.” *Ex. Id.* 1:35-39.

The claim describes the cellular phone as comprising “a receiver and one or more processors including a digital signal processor . . . configured for receiving and processing files transmitted by orthogonal frequency-division multiplex modulation.”²

² Petitioners argue that claim 1 “does not require that the ‘receiver,’ ‘processor,’ and ‘digital signal processor’ components actually do anything.” Pet. 14. Patent Owner does not agree with this contention. Nevertheless, for the purposes of this

Id. 33:16-20. The claimed structure provides the technical solution to the technical problem of transmitting and receiving compressed audio and/or visual files. During the prosecution of the parent patent of the '502 patent, the inventor submitted a declaration indicating that such a structure was implemented to permit the phone to receive and play back high quality, compressed digital audio and/or visual files. Ex. 1023. This declaration was also submitted to the examiner during the prosecution of the '502 patent. Ex. 1024 at 13; Ex. 30 at 3. In the declaration, the inventor explained that, in order to receive and play the transmitted files, he needed to develop a printed circuit board containing the necessary structure—essentially a wireless MP3 player. Ex. 1023 ¶ 5. This novel circuit board was then integrated with the cellular phone to create a prototype device capable of receiving and playing the compressed files. *Id.* The inventor's design as claimed in the '502 patent thus addressed another technical problem, the limitations of cellular phones at the critical date, with a technical solution, a particularly configured cellular phone containing specific components.

Further, claim 1 teaches a means to provide a representation of a portion of a library of compressed digital audio and/or visual files to a cellular phone. *Id.* 33:5-10. This solves the technical problem of allowing the user of a cellular phone to preview a listing corresponding to a digital library of audio and/or visual files. It is accomplished proceeding, Petitioners admit that the claim requires that these elements be present. *Id.*

by a technical means, storing the digital library on the server, and then sending a representation of at least a portion of that library to the cellular phone. *Id.*

Petitioners ignore the context of the claim as a whole, parsing each element without reference to the others. The Board has rejected this process. *Google*, CBM2016-0036, Paper 12 at 8-9 (denying institution of a CBM petition because the petitioner’s arguments “focus on the individual features of the claims, rather than on the claims as a whole”). Just as in *Old Republic*, here, Petitioners focus entirely on the individual elements of claim 1 and do not view them as a whole. *Old Republic*, CBM2015-00184, Paper 7 at 7. Here, as in *Old Republic*, “[s]uch a cursory analysis is insufficient to demonstrate that the [] patent claims, as a whole, do not recite a technological feature that is novel and unobvious.” *See also Apple, Inc. v. ContentGuard Holdings, Inc.*, CBM2015-00046, Paper 12 at 10 (PTAB June 3, 2015)(“Petitioner does not even mention the claimed subject matter as a whole, but instead merely points to discrete pieces of the claim, each taken out of context and dissected separately.”); *Emnos USA Corp. v. Dunnhumby Ltd.*, CBM2015-00116, Paper 8 at 8 (PTAB Nov. 10, 2015) (finding that “Petitioner has not met its burden with respect to the first prong of the technological invention exclusion” where “Petitioner addresses only certain elements of the claims and fails to assess any of the claims as a whole”); *Experian Mktg. Sols., Inc. v. RPost Commc’ns Ltd.*, CBM2014-00010, Paper 20 at 9 (PTAB Apr. 22, 2014) (denying institution of CBM review where the petitioner “analyzed the method

steps separately, instead of examining each claim as a whole as required” and also concluding that “Petitioner’s conclusory language in the petition that none of the steps of a claim requires any novel and unobvious technological implementation, or solves a technical problem, without more, is not sufficient to demonstrate that the claimed subject matter is not a technical invention”).

Viewed as a whole and in context of the other elements, the claims of the ’502 patent present a technological invention that improves upon existing technology. It does so by solving technical problems with technical solutions—and the claims claim technological inventions. Because the Petition fails to address these novel solutions, and do not address the claims as a whole, it must be denied. The Petition also fails to present argument as to the remaining claims of the ’502 patent, which depend from the technological invention claimed in claim 1, so institution of CBM review must be denied.

IV. Claim Construction.

Petitioners submit that a single claim term, “orthogonal frequency-division multiplex” or “OFDM,” requires claim construction. Petitioners propose that the use of OFDM should be construed as “not limited to use of OFDM for transmission over an audio channel,” but also include using OFDM for “transmission of files over data channels of modern digital cellular networks that employ OFDM, such as Long-Term Evolution (LTE).” Pet. 31-32.

In a CBM proceeding, claim terms are given their “broadest reasonable construction in light of the specification of the patent in which [they] appear[.]” 37 C.F.R. § 42.300(b). As claims terms are generally given their plain and ordinary meaning, Patent Owner submits that no construction of the OFDM term is necessary. For the purposes of this preliminary response,³ however, Patent Owner will apply Petitioners’ proposed construction solely for the purpose of determining institution.

V. Petitioners Have Not Proven That One Or More Claims Of The ’502 Patent Are More Likely Than Not Unpatentable Under 35 U.S.C. § 101.

35 U.S.C. § 101 makes eligible for patenting “any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof” 35 U.S.C. § 101. Eligibility under 35 U.S.C. § 101 is subject to “an important implicit exception: Laws of nature, natural phenomena, and abstract ideas are not patentable.” *Ass’n for Molecular Pathology v. Myriad Genetics, Inc.*, 133 S. Ct. 2107, 2116 (2012).

Although laws of nature, abstract ideas, and natural phenomenon are unpatentable, courts must “tread carefully in construing this exclusionary principle lest it swallow all of patent law.” *Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 134 S. Ct. 2347,

³ Patent Owner reserves its right to submit additional, alternative argument in other papers, including its Patent Owner Response and in the litigation underlying the Petition.

2354 (2014). Indeed, “all inventions at some level embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas.” *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289, 1293 (2012); *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 418-419 (2007) (“inventions in most, if not all, instances rely upon building blocks long since uncovered, and claimed discoveries almost of necessity will be combinations of what, in some sense, is already known”); *Park v. Booth*, 102 U.S. 96, 102 (1880) (“Modern inventions very often consist merely of a new combination of old elements or devices, where nothing is or can be claimed except the new combination.”). Accordingly, “an invention is not rendered ineligible for patent protection simply because it involves an abstract concept.” *Alice*, 134 S. Ct. at 2354 (citing *Diamond v. Diehr*, 450 U.S. 175, 187 (1981)).

In *Alice*, the Supreme Court articulated a two-step test for determining whether or not an invention is eligible for patent protection. First, the Court determines “whether the claims at issue are directed to one of those patent ineligible concepts.” *Alice*, 134 S. Ct. at 2355. If the patent is directed to a patent ineligible concept, the Court examines what else is described in the claims. *Id.* If the claims contain an “‘inventive concept’—*i.e.*, an element or combination of elements that is ‘sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself,’”—the claims are eligible for patent protection. *Id.* (citing *Mayo*, 132 S. Ct. at 1294). In other words, courts “must distinguish between

patents that claim the ‘buildin[g] block[s]’ of human ingenuity and those that integrate the building blocks into something more, thereby ‘transform[ing] them into a patent-eligible invention.” *Id.* (citing *Mayo*, 132 S. Ct. at 1294). Those inventions that integrate these “building blocks into something more” do not pose a risk of preempting the field, and thus are “eligible for the monopoly granted under the patent laws.” *Id.* at 2355. Because Petitioners have not demonstrated that any of the claims of the ’502 patent are more likely than not unpatentable in light of 35 U.S.C. § 101, the Petition must be rejected on these grounds.

A. The ’502 patent does not claim an abstract idea, law of nature, or natural phenomena.

While it is true that “recitation of generic computer limitations does not make an otherwise ineligible claim patent-eligible,” a solution to a problem that “is necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks” is eligible for patent protection. *See DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1257 (Fed. Cir. 2014). In other words, claims that “address a business challenge . . . particular to the Internet” may be valid under 35 U.S.C. § 101. *Id.* Claims that simply recite an abstract idea with “routine additional steps such as updating an activity log, requiring a request from the consumer to view the ad, restrictions on public access, and use of the Internet” are invalid under 35 U.S.C. § 101. *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 716 (Fed. Cir. 2014). This is because these types of claims broadly and generically incorporate the Internet to

perform an abstract business practice, in addition to “insignificant added activity.” *DDR*, 773 F.3d at 1258. On the other hand, claims that “specify how interactions with the Internet are manipulated to yield a desired result” are not directed to an abstract concept. *Id.* at 1258-59.

Recently, in *Enfish, LLC v. Microsoft Corp.*, the Federal Circuit provided additional clarity with regards to the patent eligibility. The *Enfish* Court noted that the *Alice* step one “directed to” inquiry does not just ask “whether the claims *involve* a patent-ineligible concept.” *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335 (Fed. Cir. 2016). Instead, the “inquiry applies a stage-one filter to claims, considered in the light of the specification, based on whether ‘their character as a whole is directed to excluded subject matter.’” *Id.* (citing *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1346 (Fed. Cir. 2015). Courts thus “ask whether the claims are directed to computer functionality versus being directed to an abstract idea, even in the first step of *Alice* analysis.” *Id.*

The *Enfish* Court found that the claims at issue were not directed to an abstract idea because they contemplated “a specific improvement to the way computers operate” *Id.* at 1336. First, the court noted that Microsoft oversimplified the idea encompassed by the invention as “the concept of organizing information using tabular formats.” *Id.* at 1337. The court rejected Microsoft’s interpretation because “describing the claims as such a high level of abstracting and untethered from the

language of the claims all but ensures that the exceptions to § 101 swallow the rule.” *Id.* (citing *Diehr*, 450 U.S. at 189 (overgeneralizing claims “if carried to its extreme, make[s] all inventions unpatentable because all inventions can be reduced to underlying principles of nature which, once known, make their implementation obvious”)). Because the claims recited a “self-referential table for a computer database,” distinct from conventional database structures, they did not claim a known, abstract idea. *Id.* Indeed, the patent’s specification recognized that self-referential tables improved upon how computers at the time stored and received data in memory. *Id.* at 1339. The claims were not directed to “a situation where general-purpose computer components are added post-hoc to a fundamental economic practice or mathematical equation” but to a “specific implementation of a solution to a problem” and thus were “not directed to an abstract idea.” *Id.*

Enfish is instructive in this case. As in *Enfish*, the claims of the ’502 patent are directed towards a problem specific to modern technology and the Internet. The claims address a specific problem in this context—how best to transmit compressed digital audio and/or visual files wirelessly to a cellular phone. *See* Ex. 1001 33:2-4. The claims present a solution to this problem unique to the Internet, specifying how to manipulate the phone and library’s interaction with the Internet to transmit the file using OFDM. *Id.* 33:14-20. This is sufficient for patent eligibility. *See DDR*, 773 F.3d at 1258-59.

Like in *Enfish*, the '502 patent improves on functionality of a computer as opposed to being directed to an abstract idea. The cellular phone is a computer, containing a digital signal processor, memory, and various other components:

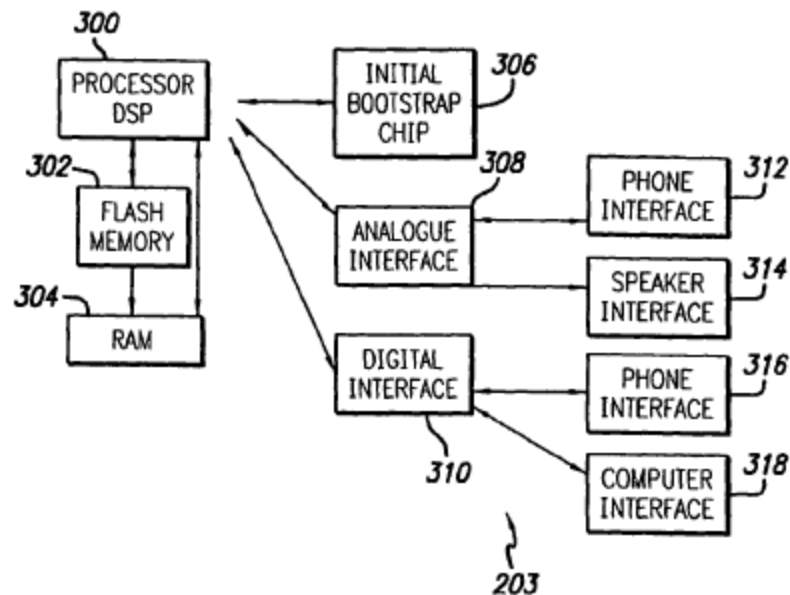


FIG. 3

E.g., Ex. 1001, Fig. 3. The server is also a computer, capable of storing and transmitting digital files to phones and equipped with an operating system such as Windows 98. *See* Ex. 1001 12:65-13:37. The use of OFDM to facilitate the transmission of data between these two computers improves their functionality. Indeed, the specification summarizes the benefits of using OFDM in such a system over conventional transmission methods:

- 1) the modulation can be made robust to Inter-Symbol Interference (ISI) by increasing symbol size; 2) the modulation can be made robust to impulse noise by

increasing symbol size; 3) for each individual sub-channel, the channel's response could be considered essentially flat, minimizing the need for channel equalization; and 4) different encoding schemes could be used for different sub-channels, for accommodating frequency-selective channel distortions.

Id. 16:65-17:6. Thus, as in *Enfish*, the claims of the '502 patent present a specific implementation of a solution to a problem involving the Internet.

The '502 patent's claims are distinct from those in *Ultramercial*, which simply added computer components post-hoc to an underlying abstract idea. There, the majority of the steps of the patent recited "the abstract concept of offering media content in exchange for viewing an advertisement." *Ultramercial*, 772 F.3d at 715-16. The additional steps were "routine," such a "updating an activity log" and "use of the Internet." *Id.* at 716. These claims were not sufficient to transform the abstract concept into patent eligible subject matter. *Id.* Thus, the "claimed sequence of steps comprise[d] only conventional steps, specified at a high level of generality, which is insufficient to supply an inventive concept." *Id.* (citation omitted). In contrast, here, the claims of the patent are not directed to an abstract idea, law of nature, or natural phenomena. Instead, the claims of the patent are addressed at a particular means for solving a problem related to the delivery of audio and/or visual files. Accordingly, the '502 patent's claims are eligible for patent protection.

Petitioners over-abstract the concepts involved in the invention and thus commit the same error as Microsoft in *Enfish*. Petitioners state that the concept

addressed by the claims of the '502 patent is simply delivering audio or video content upon user request. Pet. at 34. Petitioners overly abstract the invention and divorce it entirely from the claims. This is improper and should be rejected by the Board. *Enfish*, 822 F.3d at 1337 (“describing the claims as such a high level of abstracting and untethered from the language of the claims all but ensures that the exceptions to § 101 swallow the rule”). Indeed, just this week, the Federal Circuit has reiterated its position that oversimplifying the claims is inappropriate during 35 U.S.C. § 101 analysis. *See McRo, Inc. v. Bandai Namco Games Am. Inc.*, 2016 U.S. App. LEXIS 16703 at *24-25 (Sept. 13, 2016) (cautioning against “oversimplifying” the claims and holding “whether at step one or step two of the *Alice* test, in determining the patentability of a method, a court must look to the claims as an ordered combination, without ignoring the requirements of the individual steps”).

As discussed above, the claims of the '502 patent relate to specific technological improvements to the functioning of existing computer technology. The claims do not merely address delivering audio or video content on request. Although this is a *part* of the invention, it is merely a building block upon which the invention improves. Courts have long held that improving upon such a building block is not an abstract idea. *Enfish*, 822 F.3d at 1337 (citing *Diehr*, 450 U.S. at 189 (overgeneralizing claims “if carried to its extreme, make[s] all inventions unpatentable because all inventions can be reduced to underlying principles of nature which, once known, make their

implementation obvious”)); *see also Mayo*, 132 S. Ct. at 1293 (“all inventions at some level embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas.”); *KSR*, 550 U.S. at 418-19 (2007) (“inventions in most, if not all, instances rely upon building blocks long since uncovered, and claimed discoveries almost of necessity will be combinations of what, in some sense, is already known”); *Park*, 102 U.S. at 102 (1880) (“Modern inventions very often consist merely of a new combination of old elements or devices, where nothing is or can be claimed except the new combination.”).

The invention claimed by the ’502 patent allows users to receive digital audio and/or visual files on cellular phones wirelessly using the Internet. The claims do not stop there, however. The cellular phone claimed by the patent has a particular structure including a digital signal processor so that it can effectively receive and play back the compressed digital audio and/or visual files. Ex. 1001 33:14-20. Further, the claims of the patent contemplate the use of OFDM to improve the transmission functionality of two computers—the cellular phone and the library. *Id.* Viewing the claims as a whole, it is apparent that this concrete improvement in functionality is what distinguishes the claims of the ’502 patent from the likes of a jukebox, brick and mortar library, and radio call-in show, as well as the overly abstracted idea presented by Petitioners. Petitioners choose to ignore the claim language, and do so at their own peril. As the the Federal Circuit has recognized, over-abstracting patent claims, as

Petitioners do here, would cause the exceptions to 35 U.S.C. § 101 to “swallow the rule.” *Enfish* 822 F.3d at 1337. The Board must act as a check on such over-
abstraction and reject the Petition’s arguments in this regard.

B. The ’502 patent claims an inventive concept.

Even if the Board concludes that the claims of the ’502 patent contemplate an abstract idea, law of nature, or natural phenomena, the claims still encompass an inventive concept. Because Petitioners have not demonstrated that it is more likely than not that the claims lack an inventive concept, the Petition should be denied.

The Supreme Court has examined the “inventive concept” analysis in two cases. In *Alice*, the Court determined that an abstract idea is not rendered eligible by simply stating the abstract idea and including the words “apply it” in a claim. *Alice*, 134 S. Ct. at 1358. Further, abstract ideas are not patentable by simply “limiting the use of an abstract idea to a particular technological environment.” *Id.* In other words, the *Alice* step two inquiry should be whether the additional limitations are necessary or incidental to implementing an abstract idea in a given technological environment. *Id.*

Mayo formed the basis for the *Alice* opinion and its analysis. In *Mayo*, the relevant claim was directed to the unpatentable law of nature correlating metabolites in the blood to efficacy and toxicity of drug dosages. *Mayo*, 132 S. Ct. at 1295. Of the three claimed steps, the first recited nothing more than the relevant and pre-existing audience: doctors who treat patients with the specific drug. *Id.* at 1297. Identifying a

specific audience merely limited the use of the natural law to a particular environment. *See id.* (quoting *Bilski v. Kappos*, 561 U.S. 593, 601 (2010)). The second step simply informed the doctors of the relevant natural correlations. *Id.* And the third step instructed doctors to determine the level of relevant metabolites using existing methods “well known in the art.” *Id.* at 1297-98 (citing the patent specification). All told, “the three steps simply t[old] doctors to gather data from which they may draw an inference in light of the correlations.” *Id.* at 1298. And in practice “[a]nyone who wants to make use of [the correlations] must first administer [the] drug and measure the resulting ... concentrations....” *Id.* (emphasis added). Thus the combination amounted to “nothing significantly more than an instruction to doctors to apply the applicable laws when treating their patients.” *Id.*

The Federal Circuit recently provided additional guidance regarding the inventive concept analysis in *BASCOM v. AT&T*. First, the Court determined that the claims at issue were directed to the abstract idea of “filtering content.” *BASCOM Global Internet Servs. v. AT&T Mobility LLC*, 2016 U.S. App. LEXIS 11687 at *16 (Fed. Cir. June 27, 2016). Nevertheless, the Court found the claims to be patent eligible as teaching an inventive concept. *Id.* at *27-28. The Court ruled that an inventive concept may result from “one or more of the individual claim limitations or in the ordered combination of the limitations.” *Id.* at *18. While recognizing that it has become common practice for a § 101 inquiry to consider whether various claim

elements simply recite “well-understood, routine, conventional activities,” the district court erred in analyzing the claims as if it were performing an obviousness analysis under 35 U.S.C. § 103. *Id.* at *20. Rather, the Court held that “[t]he inventive concept inquiry requires more than recognizing that each claim element, by itself, was known in the art.” *Id.* at *20-21. The inventive concept can instead be “found in the non-conventional and non-generic arrangement of known, conventional pieces.” *Id.* at *21.

Thus, even though “filtering content” was known in the art, BASCOM’s patent arranged the known, existing elements in a manner which imparted benefits over conventional filtering. *Id.* at *23. Thus, the claims were “more than a drafting effort designed to monopolize the abstract idea”—they improved an existing technological process. *Id.* (quotations omitted). Thus, the claims “transform[ed] the abstract idea of filtering content into a particular, practical application of that abstract idea.” *Id.* at *28.

Petitioners allege that the ’502 patent merely claims the abstract idea of delivering audio or video content upon request. Pet. at 34. Petitioners are incorrect, and the claims are not directed at this over-abstracted concept. *See* Section V(A). Regardless, even if the claims are directed to that abstract concept, as in *BASCOM*, the claims present a particular, practical application of the concept that improves upon that concept in an inventive manner. Here, the patent claims improve upon the delivery of compressed audio and/or visual files from a library on a server to a cellular phone containing a receiver and digital signal processor by using OFDM as the

transmission means. Ex. 1001 33:2-22. Indeed, the '502 patent's specification is clear on the benefits of utilizing OFDM over other transmission methods:

1) the modulation can be made robust to Inter-Symbol Interference (ISI) by increasing symbol size; 2) the modulation can be made robust to impulse noise by increasing symbol size; 3) for each individual sub-channel, the channel's response could be considered essentially flat, minimizing the need for channel equalization; and 4) different encoding schemes could be used for different sub-channels, for accommodating frequency-selective channel distortions.

Id. 16:65-17:6. Thus, as in *BASCOM*, the '502 patent takes the abstract idea of delivering audio or video upon request and transforms it into a practical application of the concept that improves upon means of transmission. This inventive concept makes the claims eligible for patent protection.

Both *Alice* and *Mayo* are distinguishable from this case. Unlike the claims in *Alice*, the '502 patent is not merely restating the abstract idea of delivering audio or video in response to a user request and saying “apply it” to the Internet. Rather, improving upon existing transmission methods for this purpose, the '502 patent specifically calls for the use of OFDM to deliver a file to a cell phone with a particular structure. The claims are also unlike those in *Mayo*, where they were “nothing significantly more than an instruction to doctors to apply the applicable laws when treating their patients.” *Mayo*, 132 S. Ct. at 1298. Here, the claims recite more than just delivering audio or video in response to a request—the claims contemplate the use of OFDM specifically

to transfer the files. Thus, the patent is not merely instructing the reader to apply a law of nature or abstract idea. Instead, it teaches the reader to accomplish the delivery through a particular, innovative means with tangible improvements over other transmission schemes. Like *BASCOM*, the claims are therefore eligible for patent protection.

Petitioners make the same mistake as the lower court in *BASCOM*, treating the 35 U.S.C. § 101 analysis as if it were an obviousness analysis under 35 U.S.C. § 103.⁴ By focusing on each element individually, and not viewing the claims as a whole, Petitioners fail to meet their burden and demonstrate that at least one of the '502 patent's claims are invalid. *BASCOM*, 2016 U.S. App. LEXIS 11687 at *20-21 ("The inventive concept inquiry requires more than recognizing that each claim element, by itself, was known in the art."). Rather, "an inventive concept can be found in the non-conventional and non-generic arrangement of known, conventional pieces." *Id.* at *21. Indeed, the Petition does nothing more than assert, incorrectly, that each claim element was known in the art. This deficiency is fatal to Petitioners' 35 U.S.C. § 101 argument. Accordingly, the Board should reject the Petition on this ground.

Finally, underlying the 35 U.S.C. § 101 analysis is a concern that the claims of a patent will preempt a law of nature. *Alice*, 134 S. Ct. at 2354. This is not a concern

⁴ Notably, Petitioners do not assert invalidity on the grounds of obviousness in their Petition.

here. Petitioners argue for a broadly defined abstract idea in the *Alice* step one analysis—delivery of audio and video content in response to user request. Pet. at 34. The '502 patent does not preempt this broad concept. The claims of the patent are directed to a particular delivery method—using OFDM—according to a particular procedure to a particular cellular device—consisting of a receiver and a digital signal processor. Ex 1001 33:2-22. These particularized claims do not preempt the entire field of wireless delivery of digital audio and/or visual content. For example, as the claims are limited to transmission by way of OFDM, any alternative transmission mechanism may be used for the delivery. This lack of preemption provides additional reassurances that the '502 patent does not implicate patent-ineligible subject matter. *See McRo*, 2016 U.S. App. LEXIS 16703 at 27 (“The preemption concern arises when the claims are not directed to a specific invention and instead improperly monopolize ‘the basic tools of scientific and technological works.’” (citing *Alice*, 134 S. Ct. at 2354)).

For all these reasons, Petitioners have failed to demonstrate that, more likely than not, any of the claims of the '502 patent are invalid for lack of patentable subject matter. Accordingly, the Board should reject the Petition's 35 U.S.C. § 101 arguments.

VI. Petitioners Have Not Proven That One Or More Claims Of The '502 Patent Are More Likely Than Not Unpatentable Under 35 U.S.C. § 112.

At the institution stage, Petitioners bear the burden of demonstrating that “it is more likely than not that at least 1 of the claims challenged in the petition is

unpatentable. 35 U.S.C. § 324 (a). If the Petitioner does not meet this threshold, the Board may not institute CBM review. *Id.*

35 U.S.C. § 112 sets forth the disclosure and description requirements for a patent. Petitioners argue that the claims of the '502 patent are invalid under 35 U.S.C. § 112 for two reasons. First, Petitioners claim that the '502 patent fails to comply with the “regards as” clause found in 35 U.S.C. § 112(b) (formerly 35 U.S.C. § 112 ¶ 2), which states that the specification must “conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the inventor or joint inventor regards as the invention.” 35 U.S.C. § 112(b). Next, Petitioners argue that the '502 patent does not comply with the written description provision of 35 U.S.C. § 112(a) (formerly 112 ¶ 1), which requires that “[t]he specification shall contain a written description of the invention” Because the Petitioners have failed to prove either provision will “more likely than not” render at least one of the '502 patent’s claims unpatentable, the Petition must be denied.

A. The claims of the '502 patent encompass what the inventors regard as their invention.

1. The “regards as” clause.

To comply with 35 U.S.C. § 112(b), a claim “must set forth what ‘the applicant regards as his invention’” *Solomon v. Kimberly-Clark Corp.*, 216 F.3d 1372, 1377 (Fed. Cir. 2000). The “regards as” requirement of 35 U.S.C. § 112 has roots dating back to the United States Court of Customs and Patent Appeals. *See, In re Conley*, 490 F.2d

972, 976 (CCPA 1974) (“Occasionally, the first sentence of the second paragraph of § 112 has been relied upon as a basis for rejection of the claim, not because of “indefiniteness” of the claim language but because the language used did not particularly point out and distinctly claim the subject matter which the applicant regards as his invention.”). *See generally, In re Prater*, 415 F.2d 1392 (CCPA 1969); *In re Cormany*, 476 F.2d 998 (CCPA 1973). The “regards as” clause rarely arises in appellate jurisprudence because, as *Conley* recognized, the “regards as” clause is “relied upon in cases where some material submitted by the applicant, other than his specification, shows that a claim does not correspond in scope with what he regards as his invention.” *Conley*, 490 F.2d at 976.

Recently, however, the Federal Circuit issued its *Ancora* opinion and provided additional analysis of the “regards as” clause. *Ancora Techs. v. Apple, Inc.*, 744 F.3d 732 (Fed. Cir. 2014). In *Ancora*, Apple asserted that the specification defined the terms “volatile memory” and “non-volatile memory” in a way that was contrary to their plain and ordinary meaning, as the terms were used in the claims. *Id.* at 734, 739. The Federal Circuit disagreed. *Id.* at 739. The Court noted that there was no dispute that the claim terms “have a meaning that is clear, settled, and objective in content.” *Id.* at 737. Thus, there was no facial ambiguity or obscurity in the claim term. *Id.* at 738. Because Ancora “embrac[ed] the claim language’s clear, ordinary meaning,” the Court concluded that the “oddly phrased” specification language and prosecution history did

not “establish that the applicants regarded their invention as something contrary to that meaning.” *Id.* 738, 739. Accordingly, the Federal Circuit rejected Apple’s “regards as” challenge. *Id.* at 739.

2. Petitioners failed to prove that the claims of the ’502 patent are more likely than not to fail to comply with the “regards as” clause.

The situation in this case is similar to that in *Ancora*. Claim 1 of the ’502 patent plainly states that the cellular phone is “configured for receiving and processing files transmitted by orthogonal frequency-division multiplex modulation [OFDM]” Ex. 1001 33:18-20. From the claims, it is apparent that no limitations, regarding the data channel, audio channel, or otherwise, are placed on the plain and ordinary meaning of OFDM. Indeed, Petitioners admit in their construction that the use of OFDM encompasses both the audio and data channels. Pet. at 31. For the purpose of this institution decision, Patent Owner does not dispute this meaning. *See* Section IV. Thus, like *Ancora*, Petitioners have not established that the inventors regarded the invention as contrary to that meaning.

Petitioners only cite to a single modern case where the “regards as” clause was used to invalidate a claim—*Allen Eng’g Corp. v. Bartell Indus., Inc.*, 299 F.3d 1336 (Fed. Cir. 2002). In *Allen Eng’g*, due to an apparent drafting error in the claims, the phrase “perpendicular” was used instead of “parallel.” *Allen Eng’g*, 299 F.3d at 1349. Allen, the patent owner, admitted that the use of “perpendicular” was incorrect and argued

that the Court should construe the term as “parallel.” *Id.* The Court refused to do so, despite characterizing the error as “schematic indefiniteness.” *Id.* Because the claims plainly contradicted the specification, and the patent owner admitted the contradiction, the Court found that the inventor did not regard the perpendicular pivoting gear box described in the claims as his invention. *Id.*

The case at hand is distinguishable from *Allen Eng’g* for the same reasons *Ancora* was distinguishable. In *Ancora*, the Federal Circuit distinguished *Allen Eng’g* because “Ancora embraces the claim language’s clear, ordinary meaning.” *Ancora*, 744 F.3d at 739. This was in stark contrast to *Allen Eng’g*, “where the patentee agreed that the claim language did no match what he regarded as his invention, as the intrinsic record unambiguously showed. . . .” *Id.* Unsurprisingly, in *Allen Eng’g*, the “court denied the patentee’s request to reject the claim’s clear, ordinary meaning.” *Id.* The same rational applies to this case. Here, there is no “schematic indefiniteness” or plain error that exists in the claims. Nor is Patent Owner asking the Board to reject the plain meaning of the claims. Instead, Patent Owner embraces that meaning for the purposes of this institution decision. Just as in *Ancora*, the Board should reject Petitioner’s “regards as” argument.

Petitioners also point to statements made by one of the ’502 patent’s inventors during the prosecution of the ’502 patent’s parent patent to support their argument. Dr. Robert Freidson, one of the inventors of the ’502 patent and its parent patent,

submitted a declaration describing the prototype device he designed as part of the inventive process. Ex. 1023. As part of that declaration, Dr. Freidson listed a number of exemplary aspects of the invention. *Id.* ¶ 7. One of these examples utilized OFDM to transmit data over the audio channel of a cellular phone. *Id.* Another example described the delivery of a rich media file over the data channel of a wireless phone without using OFDM. *Id.*

Dr. Freidson's statements were not meant to limit the scope of the patent's claims, nor were they intended to provide an exhaustive list of embodiments. Dr. Freidson was clear that he was discussing two possible aspects, out of many, encompassed by the invention:

In one aspect, my inventive method employed OFDM teachings as a method for data transmission over an audio channel of a wireless cell phone. *In another aspect*, I have developed a method for rich media delivery over a data channel of a wireless cell phone that doesn't employ OFDM.

Id. (emphasis added). Dr. Freidson was describing the invention broadly with reference to two possible applications. In the first, Dr. Freidson describes wireless delivery to a "wireless cell phone" using the "audio channel" of that phone "employ[ing] OFDM." In the other described aspect, Dr. Freidson explains that he also developed the technology to transmit rich media "over the data channel," including to a "wireless cell phone" that, for whatever reason, "doesn't employ OFDM." Petitioners do not cite to any evidence from the declaration indicating that

Dr. Freidson intended these examples to be limiting in any way, or that the examples exhaustively described the invention. Because the examples are not limiting, the distinctions between the two examples serve to highlight the scope of the invention, not limit it to particular uses on particular channels.

Petitioners also argue that a single statement in the specification provides evidence that the inventor did not regard the use of OFDM on the data channel as part of the invention. This argument is also flawed. As in Dr. Freidson's declaration, the patent's specification provides a number of non-limiting examples as to the implementation of the claimed invention. One such implementation describes both the use of OFDM and the use of the audio channel of the phone. Ex. 1001, 16:63-64. Another example describes transmission by way of the data channel. *Id.* 19:55-65. This example also notes that the use of OFDM is not "required" for this particular implementation. *Id.* 19:61. Nothing in this language is limiting, however, nor does it suggest that the inventors did not consider the use of OFDM in transmission over the data channel. The statement is much more straightforward—while OFDM may be used for transmission over the data channel, it is not required in the particular embodiment detailed in the specification. The inventors had already detailed the use of OFDM in a prior embodiment. That the specification indicated that OFDM was not "required" for the data channel embodiment is not an indication that the inventors did not contemplate its use as part of their invention. If anything, the

statement demonstrates that the inventors were aware that OFDM *could* be used over the data channel, but did not want to limit their invention only to its use.

In sum, Petitioners have failed to provide any evidence, let alone demonstrated that it is more likely than not, that the inventors of the '502 patent intended to place any limitation on the use of OFDM in claim 1. For this reason, Petitioners arguments relating to the “regards as” clause of 35 U.S.C. § 112(b) also fail.

B. The claims of the '502 patent are adequately described.

1. The written description requirement.

35 U.S.C. § 112 also states that “the specification shall contain a written description of the invention” 35 U.S.C. § 112(a) (formerly 35 U.S.C. § 112 paragraph 1). The written description requirement is satisfied when the specification “conveys to those skilled in the art that the inventor had possession of the claimed subject matter of the filing date.” *Ariad Pharms., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010). To answer this question, the Board performs an “objective inquiry into the four corners of the specification from the perspective of a person of ordinary skill in the art.” *Id.* In doing so, information that was “well-known in the art” can be inferred in addition to what is disclosed in the specification. *Boston Sci. Corp. v. Johnson & Johnson*, 647 F.3d 1333, 1366 (Fed. Cir. 2011).

“[T]he hallmark of written description is disclosure.” *Ariad*, 598 F.3d at 1351.

The amount of disclosure “required to satisfy the written description requirement

depends, in large part, on the nature of the claims and the complexity of the technology.” *Streck, Inc. v. Research & Diagnostic Sys.*, 665 F.3d 1269 (Fed. Cir. 2012). In any case, “there is no requirement that the disclosure contain either examples or an actual reduction to practice.” *Alcon Research Ltd. v. Barr Labs., Inc.*, 745 F.3d 1180, 1190 (Fed. Cir. 2014). In other words, the written description requirement “is about whether the skilled reader of the patent disclosure can recognize that what was claimed corresponds to what was described; it is not about whether the patentee has proven to the skilled reader that the invention works, or how to make it work” *Id.* at 1191. The relevant inquiry is whether disclosure allows “one skilled in the art to visualize or recognize the identity of the subject matter purportedly described. *Enzo Biochem, Inc. v. Gen-Probe Inc.*, 323 F.3d 956, 968 (Fed. Cir. 2002). *See also, LizardTech, Inc. v. Earth Resource Mapping, Inc.*, 424 F.3d 1336, 1345 (Fed. Cir. 2005) (“the patent specification is written for a person of skill in the art, and such a person comes to the patent with the knowledge of what has come before . . . it is unnecessary to spell out every detail of the invention in the specification; only enough must be included to convince a person of skill in the art that the inventor possessed the invention”).

2. Petitioners failed to prove that the claims of the '502 patent are more likely than not to fail to comply with the written description requirement.

The '502 patent teaches an innovative method for wirelessly delivering digital audio and/or visual files from a server to a cellular phone with a particular structure.

Ex. 1001, 33:2-4. First, the digital files are stored in a library on a server and a representation of the library is sent to the cellular phone. *Id.* 33:5-10. Then, the user of the cellular phone selects and requests a particular file from the library. *Id.* 33:11-13. The server then transmits the requested file to the cellular phone “by orthogonal frequency-division multiplex modulation” also known as OFDM. *Id.* 33:14-20. The use of OFDM is described in detail by the specification of the patent. *Id.* 16:63-17:59. Finally, the user’s selection of a file is also tracked. *Id.* 33:21-22.

Petitioners’ argument that the specification does not describe the use of OFDM on the data channel is flawed. The patent’s specification provides a number of non-limiting examples as to the implementation of the claimed invention. One such implementation describes both the use of OFDM and the use of the audio channel of the phone. Ex. 1001, 16:63-64. Another example describes transmission by way of the data channel. *Id.* 19:55-65. Petitioners claim that the specification excludes the use of OFDM over the data channel because, in regards to this embodiment, the specification notes that the use of OFDM is not “required.” *Id.* 19:61. This single statement from the specification is not enough to disclaim the use of OFDM generally, over the audio channel or the data channel. *See Thorner v. Sony Computer Ent. Am. LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012). Nor does it change the plain, unlimited meaning of using OFDM. *Id.* (“the patentee must ‘clearly express an intent’ to redefine the term”). For these reasons, Petitioners’ arguments fail.

Petitioners rely on *ICU Med. Inc. v. Alaris Med. Sys.*, to support their written description arguments. In *ICU Medical*, the patents-in-suit related to medical valves used in transmitting fluids to medical patients through IV. *ICU Med., Inc. v. Alaris Med. Sys.*, 558 F.3d 1368, 1372 (Fed. Cir. 2009). The asserted claims included a set of claims describing the valve with a spike used to puncture the valve's seal. *Id.* at 1374. In another set of asserted claims, the inclusion of a spike was optional. *Id.* at 1372. The parties' written description arguments focused on this latter set of claims. *Id.* at 1377. Because these claims "[did] not include a spike limitation" they were "broader" than the asserted spike claims. *Id.* at 1378. The Court concluded that these spike-optional claims were not adequately described because "the specification describes only medical valves with spikes." *Id.* Indeed, ICU "failed to point to any disclosure in the patent specification that describes a spikeless valve" *Id.* at 1379. For these reasons, the Court held that the spike-optional claims were invalid. *Id.*

ICU Medical is distinguishable from the present case. In *ICU Medical*, the patents-in-suit included claims for an embodiment with an element that was wholly undescribed in the specification of the patents—a spikeless valve. *Id.* at 1378. Because the specification only addressed "medical valves with spikes," the broader, spike optional claims were undescribed. *Id.* Here, claim 1 specifically claims the transmission of digital audio and/or visual files "by orthogonal frequency-division multiplex modulation." Ex. 1001, 33:18-21. The use of OFDM is described in detail in one

exemplary embodiment. *See, e.g., id.* 16:63 (“An orthogonal frequency-division multiplex (OFDM) modulation scheme is used for data transmission.”); *Id.* 17:23-59 (describing implementation of OFDM). This is in stark contrast to *ICU Medical*, where a spikeless valve was never described in the specification. Additionally, although the use of OFDM is not explicitly implemented in data channel example in the specification, this is insufficient to invalidate the claims. At best, Petitioners can argue that the specification does not “require” the use of OFDM, but does not prohibit it. *Pet.* at 34. *ICU Medical*’s holding is not applicable in this case.

Nor does Petitioners’ reliance on *Bamberg v. Dalvey* save the Petition. In *Bamberg*, the claims of the asserted patent were construed to contain a “white layer that melts above and below 220°C.” *Bamberg v. Dalvey*, 815 F.3d 793 (Fed. Cir 2016). The specification, however, stated that a melting white layer was “undesirable.” *Id.* at 798. Because *Bamberg* “specifically distinguished white layers that melt below 220°C as producing an ‘undesired’ result,” the claims were not adequately described. *Id.* Here, no such distinction was made. Petitioners allege that the specification states that the use of OFDM was not required in conjunction with transmission over the data channel. *Pet.* at 61-62. This is not the same as saying the use of OFDM is undesirable. Rather, it simply means that the particular embodiment *could* be, but is not necessarily, implemented without OFDM. *Bamberg*, like *ICU Medical*, is inapplicable to the present case.

It is Petitioners' burden to prove that one or more of the claims of the patent are more likely than not unpatentable. 35 U.S.C. § 324 (a). Here, Petitioners have failed to meet their burden with regards to written description. The '502 patent's specification details the use of OFDM in data transmission. The mere fact that some of the examples disclosed do not require, but may include, the use of OFDM does not create a written description issue. Indeed, Petitioners admit that, without additional limitations, the use of OFDM is properly interpreted as encompassing transmission over both the audio and data channels. *See* Pet. at 34. Petitioners' arguments are nothing more than an attempt to manufacture a description deficiency where none exists. Such an argument does not prove that the claims of the '502 patent are "more likely than not" unpatentable. For these reasons, the written description requirement of 35 U.S.C. § 112 does not provide a basis for institution of CBM review.

VII. Conclusion.

For the reasons stated above, the '502 patent does not "claim 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," and thus is not eligible for CBM review. A.I.A. § 18(d)(1). For this reason alone, the Petition should be denied. Nevertheless, if the Board determines that the claims of the '502 patent meet this threshold, Petitioners have failed to demonstrate that one or more claims of the '502 patent are more likely than not to be found unpatentable, on

either 35 U.S.C. § 101 or 35 U.S.C. § 112 grounds. Because Petitioners have not met their burden, the Petition should be denied and CBM proceedings should not be instituted.

Dated: September 15, 2016

Respectfully submitted,

/s/ Ryan M. Schultz

Ryan M. Schultz

Registration No. 65,143

Andrew J. Kabat

Registration No. 71,252

Attorneys for Patent Owner

Robins Kaplan LLP

2800 LaSalle Plaza

800 LaSalle Ave

Minneapolis, MN 55401

CERTIFICATE OF COMPLIANCE WITH TYPE-VOLUME LIMITATION

I hereby certify that the above Patent Owner's Preliminary Response consists of 11,722 words in 14 point Garamond font as calculated by the word count feature Microsoft Office 2010, in compliance with 37 C.F.R. § 42.24(a)(iii) and (b)(1). This word count is inclusive of all text and footnotes but not including a table of contents, a table of authorities, mandatory notices under § 42.8, a certificate of service or word count, or appendix of exhibits or claim listing.

/s/ Ryan M. Schultz

Ryan M. Schultz
Registration No. 65,143
Andrew J. Kabat
Registration No. 71,252

CERTIFICATE OF SERVICE

I hereby certify that on this September 15, 2016, a copy of Patent Owner's Preliminary Response has been served in their entirety by electronic mail to
Petitioners:

hkeefe@cooley.com
amace@cooley.com
zpatdcdocketing@cooley.com

/s/ Ryan M. Schultz

Ryan M. Schultz
Registration No. 65,143
Andrew J. Kabat
Registration No. 71,252