

**UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE UNITED STATES PATENT TRIAL AND APPEAL BOARD**

In re U.S. Patent No. 6,193,520

Issued: February 27, 2001

Filed: July 2, 1998

Applicant: Takeya Okamoto

Title: Interactive Communication System for
Communicating Video Game and Karaoke Software

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U.S. Patent and Trademark Office

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**PETITION FOR POST GRANT REVIEW OF A COVERED
BUSINESS METHOD PURSUANT TO § 18 OF THE LEAHY-SMITH
AMERICA INVENTS ACT AND 35 U.S.C. § 321**

In accordance with 35 U.S.C. § 321 and § 18 of the Leahy-Smith America Invents Act (“AIA”) and pursuant to 37 C.F.R. § 42.300 *et seq.*, Petitioners Sony Computer Entertainment America LLC (“SCEA”) and Microsoft Corporation Inc. (collectively “Petitioners”) request review of U.S. Patent No. 6,193,520 (“the ‘520 Patent”) issued on July 2, 1998 to Takeya Okamoto (“Applicant”). **Exhibit 1001**, ‘520 *Patent*. Petitioners assert that it more likely than not that at least one of claims 8-14 of the ‘520 Patent (the “Challenged Claims” or “Claims 8-14”) is unpatentable and respectfully requests review of, and judgment against, Claims 8-14 as being unpatentable under § 103.

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I. INTRODUCTION

Petitioners advance the instant Petition to seek application of decisions already reached by the PTAB in finding that Claim 8-14 of the ‘520 Patent are invalid based on the following prior art references: U.S. Patent 4,999,806 to Chernow, et al. (“Chernow”) [Ex. 1002]; U.S. Patent 5,547,202 to Tsumura (“Tsumura”) [Ex. 1003]; Japanese Published Patent No. H6-334780 to Okamoto, which is the Japanese parent of the ‘520 Patent (“Okamoto Japanese Parent”) [Exs. 1004 and 1005 (translation)]; German Patent No. DE 19528017 to Nishio, et al. (“Nishio”) [Exs. 1006 and 1007 (translation)]; and Japanese Published Patent No. 04-10191 to Kato (“Kato”) [Exs. 1008 and 1009 (translation)]. As detailed below, Petitioners advanced not one but two *ex parte* reexamination proceedings regarding the ‘520 Patent (“Prior Reexams”) in an effort to persuade the Examiner in those proceedings to consider more than just a single ground for rejection of Claims 8-14. Because the Examiner refused and considered only one of the weaker grounds for rejection of these claims, Claims 8-14 remain. However, two distinct conclusions already provided by the PTAB in the Prior Reexams demonstrate that Claims 8-14 are invalid.

Specifically, the PTAB has determined that the “clock means” limitation of Claims 8-14 is supported by disclosure in the ‘520 Patent that was added as of July 2, 1998. Accordingly, Claims 8-14 cannot claim priority before July 2, 1998. In view of this priority date analysis by the PTAB, Petitioners advance the Okamoto Japanese Parent and Nishio as prior art.

Additionally, while the Examiner in the Prior Reexams refused on procedural grounds to consider a rejection to Claim 8 of the '520 Patent based on Tsumura, the PTAB in affirming a rejection of Claim 1 of the '520 Patent has already found that Tsumura discloses the clock means limitation relied upon to sustain Claims 8-14, as will be detailed further below. Tsumura's express teaching of a clock means limitation identical to that in Claim 8 was acknowledged by the Examiner and the PTAB, was not refuted by Patent Owner, but was never applied to Claim 8 in the Prior Reexams. Now is the time to do so. Taking these findings together and applying the resulting prior art analysis, Claims 8-14 should not survive.

II. GROUND FOR STANDING

"A patent having one or more claims directed to a covered business method is a covered business method patent for purposes of the review, even if the patent includes additional claims." *See* Fed. Reg. Vol. 77, No. 157 at 48736; *see also Agilysys, Inc. et al. v Ameranth, Inc.*, CBM2014-00016, Paper 19 at 10 (P.T.A.B. March 26, 2014). As set forth below, Petitioners demonstrate that, under 37 C.F.R. § 42.304(a), the '520 Patent has at least one claim directed to a covered business method. Specifically, at least claims 8-10 of the '520 Patent are directed to a covered business method. Petitioners are eligible to file this Petition under 35 U.S.C. § 42.302(a) and (b).

A. Financial Product or Service

Regarding the first prong of the CBM analysis, the AIA defines a CBM patent as "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” AIA § 18(d)(1); *see also* 37 C.F.R. § 42.301(a). The USPTO has indicated that the definition of covered business method patents shall be interpreted broadly to encompass patents claiming activities that are financial in nature, incidental to a financial activity or complementary to a financial activity. *See* Fed. Reg. Vol. 77, No. 157 at 48734-35; *see also* *SAP America Inc. v Versata Development Group, Inc.*, CBM2012-00001, Paper 36 at 23 (P.T.A.B. Jan. 9, 2013); *Agihsys, Inc. et al. v Ameranth, Inc.*, CBM2014-00016, Paper 19 at 10-11 (P.T.A.B. March 26, 2014).

Independent claim 8 of the ‘520 Patent recites: “A communication system for transmitting at least one of the combination of the program, the data, and a combination of the program and data from a host facility to a communication terminal device ... said host facility comprising: storage means ... and sending out means” Ex. 1001, ‘520 *Patent* at 15:15-48. The ‘520 Patent explains that a host facility includes a financial “charging system” and performs a financial “charging process” upon receiving an indication that the transmission of programs and/or data is complete. *Id.* at 6:65-7:30. The specification states that the financial charging system can either be a “fixed amount system” or a “pay-per-play system.” *Id.* at 6:65-7:6, 9:30-37. The ‘520 Patent also discloses that payment is made “using the automatic transfer system, by debiting the amount to the bank account of the players.” *Id.* at 7:17-19. The ‘520 Patent specification is replete with preferred embodiments describing activities that are financial in nature. *See, e.g., id.* at FIGs 4, 5, 12-14; 2:49-3:4; 5:31-41; 6:65-7:64; 8:47-54;

9:30-37; 10:55-11:36; 11:65-12:10. Thus, the subject matter of claim 8 is at least incidental or complementary to a financial activity (i.e., a financial charging and payment process), and satisfies the financial product or service requirement. Claim 9, which depends from claim 8, satisfies the financial product or service requirement for the same reasons set forth above with respect to claim 8.

Claim 10 of the ‘520 Patent, in addition to the financial aspects of claim 8, further claims activities that are financial in nature, namely requiring a user to pay a “surcharge” in order to keep using a transmitted program and/or data. *Id.* at 10:45-49, 11:1-5, 11:32-12:19, 15:60-16:7. Claim 10 recites a “means for stopping the interference” and the structure for performing the function is a “general purpose computer programmed to: 1) determine whether or not a ‘surcharge’ is paid (step S1370 depicted in Figure 12 [of the ‘520 Patent]); and 2) permit the program or data to be continuously used (step S1390 depicted in Figure 12).” *See* Section IV.C.1.l) below. Moreover, during the Prior Reexams, Patent Owner added new claim 22 (dependent from claim 8), which requires “payment of an *additional* charge.” Ex. 1010, *Reexam 90/010666* at July 23, 2014 Certificate, 2:10-19 (emphasis added). Both payment of an additional charge and determining whether a surcharge is paid are activities that are financial in nature. Claim 10, in addition to claims 8 and 9, satisfies the financial product or service requirement.

B. Technological Invention

The definition of “covered business method patent” in Section 18(d)(1) of the

AIA excludes patents for “technological inventions.” In order to be excluded from qualifying as a covered business method, a claim must both “recite[] a technological feature that is novel and unobvious over the prior art; *and* solve[] a technical problem using a technical solution.” 37 C.F.R. § 42.301(b) (emphasis added). According to USPTO guidance, claims drafted using the following techniques are typically **not** technological inventions: “(a) mere 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; (b) reciting the use of known prior art technology to accomplish a process or method, even if that process or method is novel and non-obvious; (c) combining prior art structures to achieve the normal, expected, or predictable result of that combination.” *See* Fed. Reg. Vol. 77, No. 157 at 48763-48764.

Here, claims 8-10 are not technological inventions under any of these guidance attributes. Looking to independent claim 8, the claim recites a communication system made up of generic computer and communications hardware. Namely, the limitations of claim 8 include: a communication terminal device with an “input device,” a “receiving means,” a “storage means,” an “executing means,” a “clock means,” an “interference means,” as well as a host facility with a “storage means” and “sending out means.” Ex. 1001, *‘520 Patent* at 15:15–16:25. As further detailed below in section IV.C.1.a-g, these limitations are described in the ‘520 specification as general purpose

computers, databases, and communication hardware, such as an antenna. With respect to the “input device,” “receiving means,” “storage means,” “executing means” and “sending out means” limitations, the technological features are nothing more than generic hardware devices with common programming that were well known at the time of the ‘520 Patent. Ex. 1011, *Expert Declaration of Mr. Garry E. Kitchen* (“*Kitchen Decl.*”) at ¶ 48. With respect to the “clock means” and “interference means” limitations, those elements similarly utilize generic computer hardware that do not reflect or even suggest any technological innovation. *Id.* at ¶ 49. And, to the extent Patent Owner contends there is a technological innovation in programming the general purpose computer to accomplish the claimed functions, such an argument would be misplaced. The programming of a general purpose computer to keep a predetermined time period after execution of a program and to interfere with the execution of the program when the predetermined time period is counted are both well-known concepts in the field. *Id.* at ¶ 50. Neither of these software concepts were novel or not readily known in the art. *Id.* Thus, Claim 8 does not require any novel tools, software or hardware not readily known in the art. *Id.* at ¶ 52. Rather, claim 8 reflects the application of well-known technologies (i.e., computers and related hardware and software, databases, and communication hardware) to a specific functional application. *Id.* One of skill in the art, considering claim 8 as a whole in the context of the ‘520 Patent, would not recognize any technological innovation such as a faster computer, more efficient communication

hardware or protocols, novel software, etc. *Id.* at ¶ 53. Thus, claim 8 does not recite a technological invention.

Further, relevant to the second and third items of USPTO guidance cited above, the PTAB has already determined that none of these features are novel or unobvious. Rather, claim 8 merely recites known prior art technology and/or the combination of prior art structures to achieve normal and predictable results. Here, the PTAB already has determined that Chernow teaches every limitation of independent claim 8 except the “clock means” limitation. Ex. 1010, *Reexam 90/010666* at Jan. 11, 2013 PTAB Decision, 28-30. However, Tsumura discloses the “clock means” limitation of Claim 8 according to the PTAB’s prior review in the context of canceled claim 1. More specifically, during the Prior Reexams, claim 1, which was identical to claim 8 except for the claimed “clock means” limitation, was amended to include a “second clock means for keeping a second predetermined time period after said executing means starts execution of the program or data processing” (a limitation that is substantively identical to the “clock means” limitation of claim 8). *Compare id.* at Nov. 2, 2011 Appeal Br., 23-24 *with* Ex. 1001, *‘520 Patent*, Claim 8. The Examiner rejected amended claim 1 of the ‘520 Patent as obvious over Chernow in view of Tsumura, specifically citing Tsumura for teaching the “second clock means” limitation. Ex. 1010, *Reexam 90/010666* at Jan. 11, 2013 PTAB Decision, 33. On appeal, the PTAB sustained the rejection of claim 1 and stated:

For teaching of a clock for measuring a predetermined time period *after the*

executing means starts execution of the received program or data processing and a teaching of interference means responsive to the clock, the Examiner (Final Action 15) relies on the following passage in Tsumura: “In the case of games like role playing games that can take a long time to play, . . . it would be desirable to incorporate an additional charge facility that would function automatically at fixed intervals during the course of a game. *The CPU's 71 internal clock, for example, could be used to calculate the unit time and to call for the insertion of an additional fee before a predetermined length of time has elapsed, and to cause the game to be discontinued as soon as that length of time has elapsed if the required additional fee has not been paid.*” *Id.* at 9:56-65 (emphasis added). Appellant does not deny that Tsumura describes measuring a predetermined time period after the start of execution of the received program.

Id. at 36 (emphasis in original decision); *generally id.* at 33-38. Each of the technological features of claim 8 was identically present in claim 1. *Compare id.* at Nov. 2, 2011 Appeal Br., 23-24 (claim 1) *with id.* at 25-26 (claim 8). Accordingly, the PTAB already has determined that these technological features are known prior art technology taught by the combination of Chernow and Tsumura. *Id.* Based on this record alone, the technological features of claim 8 are neither novel nor unobvious. Claim 8 does not present a technological invention, and is not excluded from qualifying as a covered business method.

Further, the Examiner found, and Patent Owner did not argue to the contrary, that the combination of Chernow, Tsumura, and Kato teaches the technological limitations of canceled dependent claims 2 and 3, which are identical to the technological limitations of dependent claims 9 and 10. *Id.* at July 6, 2011 Final Office Action, 31-34; *id.* at Nov. 2, 2011 Appeal Br., 19; *id.* at Jan. 11, 2013 PTAB Decision, 48. Accordingly, the technological features of claims 9 and 10 reflect known prior art technology, and none of the features are novel or unobvious. The only difference between claim 10 and now-canceled claim 3 is the additional “clock means” of claim 1, from which claim 3 depends. *Compare id.* at Nov. 2, 2011 Appeal Br., 23-24 (claim 3) *with id.* at 25-27 (claim 10). Thus, the PTAB has already determined that the purported invention of claim 10 is neither novel nor unobvious. *See also* prior art invalidity grounds for the Challenged Claims set forth below in Section V. Claims 9 and 10, in addition to claim 8 as described above, do not present a technological invention, and are not excluded from qualifying as a covered business method. Covered Business Method Patent Review is appropriate for the ‘520 Patent.

C. Petitioners Have Been Sued for Infringement of the ‘520 Patent and Are Not Estopped

On October 27, 2008, ADC sued Petitioners for infringement of the ‘520 Patent, *ADC v. Microsoft Corp., et al.*, No. 2:08-CV-01579-RSM (W.D. Wash.) and thus Petitioners satisfy the requirements of AIA § 18(a)(1)(B) and 37 C.F.R. § 42.302(a). The

Petitioners are not estopped from challenging the claims of the ‘520 Patent on any of the grounds identified in this Petition, per 37 C.F.R. §42.302(b).

III. BACKGROUND

A. Prior Related Patents and Applications

On May 10, 1993, Japanese Patent Application No. 5-108303 was filed by inventor Takeya Okamoto and it was published on December 2, 1994. Ex. 1004, *Okamoto Japanese Parent*; Ex. 1005, *Okamoto Japanese Parent (Certified English Translation)*. On April 25, 1994, a corresponding U.S. Patent Application was filed, which issued on February 6, 1996, as US Patent 5,489,103 (“the ‘103 Patent”). Ex. 1012, *‘103 Patent*.

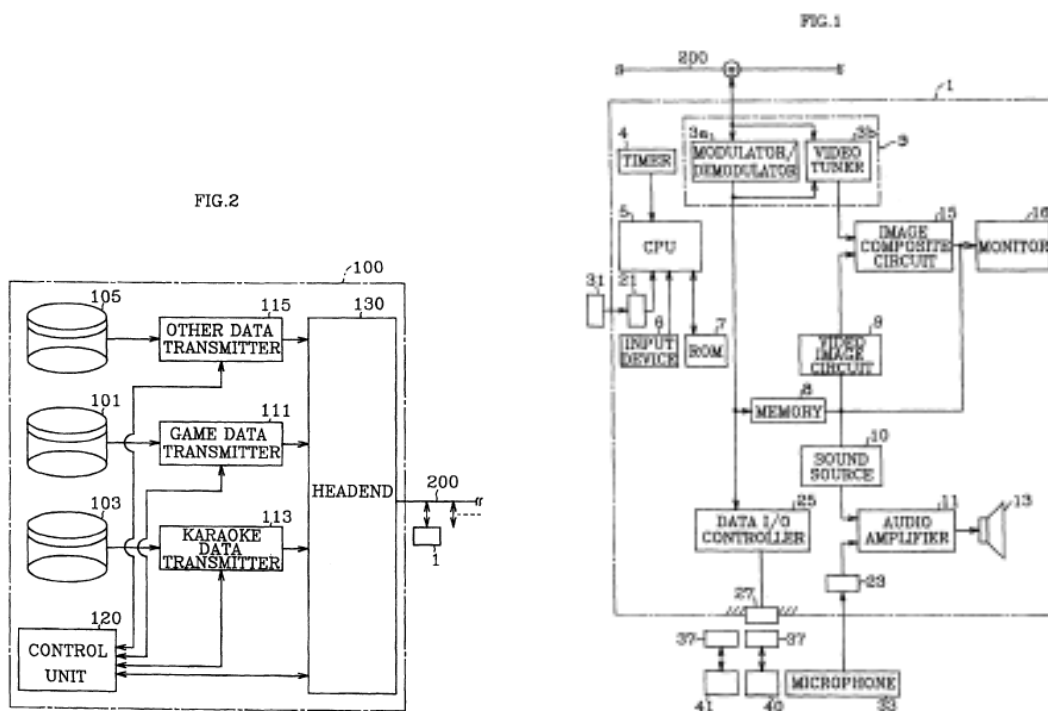
On November 9, 1995, a continuation-in-part application of the ‘103 Patent was filed, which issued on April 7, 1998, as US Patent 5,735,744 (“the ‘744 Patent”). Ex. 1013, *‘744 Patent*. The ‘744 Patent added new figures 8A-D and 9-11 and provided additional disclosure to support the new figures (*see, e.g., id.* at 4:32-45 and 10:59-12:2). The new figures and accompanying written description were not disclosed in either the ‘103 Patent or the Okamoto Japanese Parent.

A divisional application of the ‘744 Patent was filed May 3, 1996, which issued on July 7, 1998, as US Patent 5,775,995 (“the ‘995 Patent”). Ex. 1014, *‘995 Patent*.

B. The ‘520 Continuation-in-Part Patent

On July 2, 1998, the application that issued as the ‘520 Patent was filed as a continuation-in-part application of the ‘995 Patent. The ‘520 Patent relates to “an interactive communication system for transmitting video game and karaoke software

from a host facility to communication terminal devices.” Ex. 1001, ‘520 Patent at 1:9-11. Claims 8-14 of the ‘520 Patent are directed toward a system for transmitting at least one of the program, the data, and a combination of the program and data from a host facility to a communication terminal device. *Id.* at 4:3-19, 15:15-16:25. When a “predetermined time” has elapsed, “the data or the program becomes unusable.” *Id.* at 4:20-24. The specific “predetermined time” of Claims 8-14 “is counted from the starting time of use of the data.” *Id.* at 11:39-40; *see also id.* at 11:37-64, Fig. 12. As explained above and shown in Figs. 1 and 2 of the ‘520 Patent, the disclosed and claimed components for implementing the alleged invention were well-known – *e.g.*, a communication terminal device comprising an input device (6), receiving means (3), storage means (8), and a general purpose computer (5) and a host facility comprising storage means (105, 101, 103) and sending out means (130).



C. The ‘520 Patent Prosecution History

The ‘520 Patent application was filed by inventor Takeya Okamoto (“Applicant”) on July 2, 1998, including 21 claims. Ex. 1015, *‘520 File History*. On May 9, 2000, the Examiner mailed an office action (“OA”) rejecting claims 1-3, 5, 8-10, 12, 15-17, and 19 under the doctrine of double patenting over claims 1-3 of the ‘995 Patent, and objecting to the remaining claims. *Id.* at May 9, 2000 OA. On August 4, 2000, a Terminal Disclaimer was submitted, limiting the patent term of the ‘520 Patent to that of its parent, the ‘995 Patent. *Id.* at Aug. 4, 2000 Terminal Disclaimer. A Notice of Allowance followed on August 25, 2000. *Id.* at Aug. 25, 2000 Notice of Allowance. The ‘520 Patent issued on February 27, 2001. Ex. 1001, *‘520 Patent*.

On July 9, 2009, Owner of the ‘520 Patent (“Patent Owner”) filed an *ex parte* reexamination request (Control No. 90/009524) as to that patent, including 7 substantial new questions of patentability. Ex. 1016, *Reexam 90/009524 Aug. 17, 2009 Response to Notice of Incomplete Request* at 2-6. On November 14, 2009, the Examiner granted the request and determined that prior art references, including Kato, Tsumura, and Chernow, among others, raised substantial new questions of patentability with respect to independent claim 8. Ex. 1017, *Reexam 90/009524 Nov. 14, 2009 Order Granting Request* at 7-13.

On September 4, 2009, Petitioners filed an *ex parte* reexamination request (Control No. 90/010666) as to the ‘520 Patent, including 53 substantial new questions of patentability and proposed grounds of rejection. Ex. 1018, *Reexam 90/010666 Sep. 4,*

2009 Request at 10-13. Petitioners specifically proposed 10 rejections of independent claim 8 under 35 USC § 102 and 7 rejections of independent claim 8 under 35 USC § 103. *Id.* On December 3, 2009, the Examiner granted the request and determined that certain prior art references (alone and in combination), including Chernow, Tsumura, and Kato, among others, raised substantial new questions of patentability with respect to claims 8-14. Ex. 1010, *Reexam 90/010666* at Dec. 3, 2009 Order Granting Request, 16-56. The Examiner also refused to substantively consider several asserted prior art references (including the Okamoto Japanese Parent) after it determined that such references did not have a priority date that preceded the May 10, 1993 priority date claimed by the '520 Patent. *See, e.g., id.* at 55-56. However, as discussed in Section III.D below, Claims 8-14 of the '520 Patent are not entitled to the claimed May 10, 1993 priority date and thus the Examiner should have considered the Okomoto Japanese Parent and other references as prior art.

The two proceedings (Control Nos. 90/009524 and 90/010666) were merged on March 12, 2010 ("the Merged Proceeding"). *Id.* at Mar. 12, 2010 Decision Merging Proceedings. On March 29, 2010, the Examiner issued an OA rejecting claims 8, 11, and 12 (among others) as anticipated by Chernow and claims 9 and 14 (among others) as obvious over Chernow in view of Kato. *Id.* at Mar. 29, 2010 OA, 5-14. On April 26, 2010, Patent Owner amended independent claims 1 and 15 and added new dependent claims 22-38. *Id.* at Apr. 26, 2010 Response. Patent Owner argued that, with respect to claim 8, Chernow failed to teach clock means for keeping a predetermined time that is

measured “after said executing means starts execution” of the program or data processing. *Id.* at 12. Patent Owner also stated: “The recited feature of Claim 8 enables the purchaser to retrieve the program yet not begin playing the program until a later time, without fear that the limited time period will expire before the purchaser can enjoy the program. See., e.g., ‘520 Patent at column 11, lines 36-41.” *Id.*

On July 16, 2010, SCEA filed another request for *ex parte* reexamination (Control No. 90/011,098) as to the ‘520 Patent, including substantial new questions of patentability and proposed rejections of issued dependent claims 3, 10, and 17 as anticipated and rendered obvious by Tsumura. Ex. 1019, *Reexam 90/011098* at Jul. 16, 2010 Request. Claims 3, 10, and 17 were, at that time, not subject to the Merged Proceeding. On October 14, 2010, the Examiner denied the request, stating: “Tsumura is found to provide prior art teachings that would be considered important to a reasonable examiner in evaluating the patentability of claims 3, 10, and 17 of Okamoto [*i.e.*, the ‘520 Patent]. However, these teachings are similar to the teachings presented in related reexaminations 90/009,524 and 90/010,666 (now merged). Further the limitations of claims 3, 10 and 17 are addressed in the merged proceeding based in part on the previously mentioned teachings. Accordingly, Tsumura does not raise a substantial new question of patentability with respect to claims 3, 10, and 17.” *Id.* at Oct. 14, 2010 Order Denying Request, 6-7.

On October 13, 2010, the Examiner issued a non-final OA with respect to the Merged Proceeding rejecting the claims, in part, as follows: Claims 8 and 11-13 were

rejected as anticipated by Chernow; claims 9 and 14 were rejected as obvious over Chernow in view of Kato; and claim 10 was rejected as obvious over Chernow in view of Kato in further view of Tsumura. Ex. 1010, *Reexam 90/010666* at Oct. 13, 2010 OA, at 8-11, 21-25, 40-42. On November 15, 2010, Patent Owner amended independent claims 1 and 15, added new claims 39-48, and again argued that, with respect to independent claim 8, Chernow fails to teach the claimed predetermined time period. *Id.* at Nov. 15, 2010 Response, 14-16.

On July 6, 2011, the Examiner issued a final OA, maintaining the above-identified rejections of the claims, among others. *Id.* at July 6, 2011 Final OA. Patent Owner later filed an Appeal Brief appealing, among other things, the rejection of independent claim 8 as anticipated by Chernow. *Id.* at Nov. 2, 2011 Appeal Brief, 4. On April 5, 2012, the Examiner issued an Answer. *Id.* at Apr. 5, 2012 Examiner's Answer. On June 5, 2012, Patent Owner filed a Reply Brief. *Id.* at June 5, 2012 Reply Brief.

On January 11, 2013, the PTAB affirmed the Examiner's decision in part, sustaining at least one ground of rejection with respect to each of claims 1-7, 23, 24, 26-30, 35, 36, 39-42, 45, and 47. *Id.* at Jan. 11, 2013 PTAB Decision; *see also id.* at Jan. 2, 2014 Decision Errata. The PTAB determined that Chernow did not teach the clock means limitation of independent claim 8, and thus the PTAB did not sustain the Examiner's Chernow-based rejection of claim 8 and of its dependent claims 9-14. *Id.* at Jan. 11, 2013 PTAB Decision, at 28-30, 45-47, 51-52.

On February 20, 2014, the PTO issued a Notice of Intent to Issue a Reexamination Certificate (“NIIRC”). *Id.* at NIIRC. The ‘520 Patent expired on April 25, 2014. On July 23, 2014, after the ‘520 Patent expired, the ‘520 Reexamination Certificate issued, which confirmed original claims 8-14 and found that amended or new claims 15-33 are patentable. *Id.* at Jul. 23, 2014 Certificate. Because the Certificate issued after the expiration of the ‘520 Patent, Petitioners submit that claims 15-21, which were substantively amended during the reexamination proceeding, and new claims 22-33 are unenforceable, such that there is no live controversy over the validity of claims 15-33. *Institut Pasteur v. Focarino*, 738 F.3d 1337, 1343 (Fed. Cir. 2013).

D. The Earliest Possible Priority Date for the Challenged Claims of the ‘520 Patent Is July 2, 1998, Which Is the ‘520 Patent’s Filing Date

The continuation-in-part application that issued as the ‘520 Patent was filed on July 2, 1998, claiming priority to each of its four parent applications, the earliest having a May 10, 1993 filing date. To claim pre-1998 priority, however, Claims 8-14 of the ‘520 Patent must be directed to subject matter disclosed in the prior application(s) in the manner provided by 35 U.S.C. § 112 ¶ 1, and must contain a written description of the invention. *See, e.g., Vas-Cath Inc. v. Mahurkar*, 935 F.2d 1555, 1562-63 (Fed. Cir. 1991); *Polaris Wireless, Inc. v. TruePosition Inc.* IPR2013-00323, Paper 62 at 20-26 (P.T.A.B. Nov. 3, 2014). Petitioners submit that Patent Owner is not entitled to claim priority for Claims 8-14 to any of the applications that issued as the ‘103, ‘774, or ‘995 U.S. patents, or to the Okamoto Japanese Parent, because none of their respective disclosures

demonstrate that Applicant was in possession of the alleged invention claimed in Claims 8-14. At a minimum, the “clock means” limitation “for keeping a predetermined time period after said executing means starts execution of the program or data processing”—found in claim 8 of the ‘520 Patent—is new and distinct from what was disclosed in Applicant’s prior applications. The “clock means” limitation of claim 8 is written in means-plus-function form. *See* Section IV.C.1.d) below. The disclosed structure for performing the function is a general-purpose computer programmed to perform steps S1300, S1310, and S1350 of the steps depicted in Figure 12 and described at 11:43-55 of the ‘520 Patent. *See* Section IV.C.1.d).

Nowhere in any of the earlier applications to which the ‘520 Patent claims priority is there a disclosure of “keeping a predetermined time period after said executing means starts execution of the program and data processing.” *See, e.g.*, Exs. 1005, 1012-1014. Prior to July 2, 1998, the only disclosure of a clock means for keeping a predetermined time period was measured from the time of receipt of the transmitted program and/or data, rather than from the time the executing means starts execution. *See, e.g.*, Ex. 1005, *Okamoto Japanese Parent* at [0033]-[0034], [0040], Fig. 7; Ex. 1014, ‘995 *Patent* at 6:58-63, 11:13-15, Figs. 7, 9. Prior to the application that became the ‘520 Patent, the clock means in the earlier disclosures always measured time from receipt of the program and/or data. One of skill in the art, having reviewed the alleged priority documents, agrees. Ex. 1011, *Kitchen Decl.* at ¶¶ 44-46. In the application that became the ‘520 Patent, which was filed on July 2, 1998, Applicant added new Figure 12 and a

corresponding description at 11:36 – 12:19 disclosing, for the first time, “another embodiment” where the predetermined time period was measured *after* the executing means starts execution. Ex. 1001, ‘520 Patent at 11:36-41, Fig. 12; Ex. 1011, *Kitchen Decl.* at ¶ 47.

Patent Owner admits that support for the “clock means” limitation of claim 8 is found in the portions of the ‘520 Patent that were added as of July 2, 1998. Ex. 1010, *Reexam 90/010666* at Nov. 2, 2011 Appeal Br., 7 (citing to Ex. 1001, ‘520 Patent at 11:36-41). The PTAB, in summarizing the “invention described in the ‘520 Patent,” stated: “Figure 12 is a flowchart showing an embodiment in which ‘a predetermined time period to prevent further use of the image data is *counted from the starting time of use of the data*, not from the receiving time of the data from the host facility.’ *Id.* at 11:37-41 (emphasis added).” *Id.* at Jan. 11, 2013 PTAB Decision, 7 (emphasis original). The PTAB already has recognized the critical distinction here. Accordingly, the Challenged Claims of the ‘520 Patent cannot claim priority before July 2, 1998—the filing date of the continuation-in-part application that issued as the ‘520 Patent—because the disclosure in each earlier application to which priority is claimed fails to satisfy the written description requirements for each of the Claims 8-14. The correct priority date for Claims 8-14 is July 2, 1998.

IV. STATEMENT OF PRECISE RELIEF REQUESTED FOR EACH CLAIM CHALLENGED

A. Identification of Challenged Claims

Petitioners requests that Claims 8-14 of the '520 Patent be canceled as unpatentable based on the following grounds. The claim construction, reasons for unpatentability, and specific evidence supporting this request are detailed below.

Proposed Statutory Rejections for the '520 Patent
Claims 8, 11, 13, and 14: Obvious under 35 U.S.C. §103(a) over Chernow (issued Mar. 12, 1991) [Ex. 1002], in view of Tsumura (issued Aug. 20, 1996) [Ex. 1003]
Claims 8-11 and 13-14: Obvious under 35 U.S.C. §103(a) over Okamoto Japanese Parent (published Dec. 2, 1994) [Exs. 1004 and 1005 (translation)], in view of Tsumura [Ex. 1003]
Claims 8-9, 11-12, and 14: Obvious under 35 U.S.C. §103(a) over Okamoto Japanese Parent [Exs. 1004 and 1005 (translation)], in view of Nishio (published Feb. 22, 1996) [Exs. 1006 and 1007 (translation)]
Claims 9 and 10: Obvious under 35 U.S.C. §103(a) over Chernow [Ex. 1002] in view of Tsumura [Ex. 1003] and Kato (published Apr. 27, 1990) [Exs. 1008 and 1009 (translation)]
Claims 12 and 14: Obvious under 35 U.S.C. §103(a) over Chernow [Ex. 1002] in view of Tsumura [Ex. 1003] and Nishio [Exs. 1006 and 1007 (translation)]

Pursuant to 37 C.F.R. § 42.63(b), Exhibits 1005, 1007, and 1009 include certifications attesting to the fact that the Exhibits 1005, 1007, and 1009 are accurate and complete translations of Exhibits 1004, 1006, and 1008, respectively.

B. Level of a Person Having Ordinary Skill in the Art

A person of ordinary skill in the field of interactive communication systems in 1998 would have a B.S. in electrical engineering, computer engineering, computer science or related engineering discipline or equivalent experience or education. Ex. 1011, *Kitchen Decl.* at ¶33.

C. Claim Construction Under 37 C.F.R. § 42.300(b)

The '520 Patent expired on April 25, 2014, and therefore is not subject to amendment. For purposes of this Petition, the claims are construed pursuant to *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312-13 (Fed. Cir. 2005) (words of a claim “are generally given their ordinary and customary meaning” as understood by a person of ordinary skill in the art in question at the time of the invention).¹

1. Means-Plus-Function Claim Term Constructions

The Challenged Claims include several recitations in means-plus-function form. Petitioners propose the following constructions for these means-plus-function terms in accordance with 35 U.S.C. § 112, ¶ 6 (now 35 U.S.C. § 112(f)):

a) receiving means (Claim 8)

The recited function is “receiving one of the program, the data, and a combination of the program and data as sent out from said host facility.” Ex. 1001, ‘520 Patent at 15:21-23. The disclosed structure for performing the function is a modem or antenna. *Id.* at Fig. 1 (item 3), Fig. 10 (item 2), 4:56-59, 6:24-25, 8:61-66, 11:10-17, 4:48-49.

¹ The claim construction analysis here is not, and should not be viewed as, a concession by Petitioners as to the proper scope of any claim term in any litigation. These assumptions are not a waiver of any argument in any litigation that claim terms in the ‘520 Patent are indefinite or otherwise invalid.

b) storage means (Claim 8)

The recited function is “storing the program, the data, or a combination of the program and data received by said receiving means.” *Id.* at 15:25-27. The disclosed structure for performing the function is a memory, including temporary memory. *Id.* at Fig. 1 (item 8), 4:49-55, 6:24-26, 7:35-40, 8:61-62, 9:47-51.

c) executing means (Claim 8)

The recited function is “executing the program stored in said storage means or executing data processing by using the data stored in said storage means, in accordance with instructions from said input device.” *Id.* at 15:28-31. The disclosed structure for performing the function is a general purpose computer (i.e., CPU 5). *Id.* at Fig. 1 (item 5), 6:31-36, 8:63-9:2, 4:48-49. The ‘520 Patent does not provide any specific details for how the CPU performs the function of “executing the program stored in said storage means or executing data processing by using the data stored in said storage means, in accordance with instructions from said input device.” For purposes of applying the prior art to the disclosed structure, Petitioners contend that the general purpose computer is programmed to start execution of the program or data processing in response to an instruction from the input device to start execution of the program or data processing. *Id.* at 6:31-36.

d) clock means (Claim 8)

The recited function is “keeping a predetermined time period after said executing means starts execution of the program or data processing.” *Id.* at 15:32-34. The

disclosed structure for performing the function is a general purpose computer programmed to perform steps S1300, S1310, and S1350 depicted in Figure 12 and described at 11:43-55.

e) interference means (Claim 8)

The recited function is “interfering with execution of said executing means when said clock means counts said predetermined time period.” *Id.* at 15:35-37. The disclosed structure for performing the function is a general purpose computer programmed to prevent further use of the program or data as described at 11:56-64 and 10:20-44. *See also id.* at Fig. 12 (step 1360), Figs. 8A-D, 10:20-44, 2:25-32.

Where the interference means comprises “means for deleting at least one of the program, the data, and a combination of the program and data stored in said storage means” (*id.* at 15:9-11 (claim 11)), the general purpose computer is programmed to delete “at least one of the program, the data, and a combination of the program and data” stored in memory. *Id.* at 11:56-58; *also id.* at 10:20-22, 10:45-47, 9:38-41, 6:46-50.

Where the interference means comprises “means for blocking the view of what is displayed on said screen” (*id.* at 16:15-16 (claim 12)), the general purpose computer is programmed to block the view on the screen of the monitor in accordance with the progress of the image data processing. *Id.* at 11:58-60, Figs. 8A, 8B; *see also id.* at 10:22-29. In the Prior Reexams, Patent Owner argued: “[T]he phrase ‘progress of execution of program or data processing is displayed’, when read together with the phrase ‘said interference means comprises means for blocking the view of what is displayed on said

screen’ necessarily means there is continuing progress of execution of the program or data processing. [...] Blocking the view of the ‘progress of execution of the program or data processing’ by executing means, which again necessarily means the underlying program or data processing itself is still being used and is usable, is fundamentally different than altogether erasing or rendering the software program unusable.” Ex. 1010, *Reexam 90/010666* at Nov. 2, 2011 Appeal Br., 9. In Reexam Control No. 90/009523, the PTAB determined the meaning of a similar limitation from the ‘520 Patent’s parent ‘995 Patent: “The disclosed embodiments of blocking the view on the screen do not stop or terminate execution of the data display software. Instead, the image presented to the viewer is altered. That is different from not producing an image at all, which is what occurs when the software programming is erased or rendered unusable.” Ex. 1020, *Reexam 90/009523 PTAB Decision* at 7. The PTAB further noted: “In the context of ADC’s ‘995 Patent, the operation of ‘blocking the view on the screen’ involves visual alteration of the screen through such practices as displaying ‘patterns of stripes’ covering the underlying substantive content of the screen or deleting the images of the screen such as by deleting an image of an opponent in a boxing game (‘995 Patent 10:56-65.)” *Id.*

Where the interference means comprises “means for invalidating the operation of said input device” (Ex. 1001, ‘520 *Patent* at 16:18-19 (claim 13)), the disclosed structure is a mechanical switch or a general purpose computer that is programmed to invalidate any operation of the input device or the controller for instruction. *Id.* at Fig.

8D, 11:62-64, 10:33-39. In the Prior Reexams, the PTAB determined that “invalidating the operation of the input device” is not met by Chernow’s disclosure that “the software renders itself unusable or erases itself from the user’s disk.” Ex. 1010, *Reexam 90/010666* at Jan. 11, 2013 PTAB Decision, 32.

Where the interference means comprises “means for preventing said sound generating means from generating the sound” (Ex. 1001, ‘520 *Patent* at 16:24-25 (claim 14)), the disclosed structure is a mechanical switch or a general purpose computer programmed to stop the sound generated. *Id.* at Fig. 8C, 11:60-62, 10:30-39. In the Prior Reexams, Patent Owner argued: “[T]he limitation recited in claims is quite different from rendering the software unusable and erasing the software from the disk. Executing the program or data processing without sound may not be ideal, but it still requires execution of the program or data processing, which can not happen if the software is unusable or erased.” Ex. 1010, *Reexam 90/010666* at Nov. 2, 2011 Appeal Br., 20. The PTAB rejected Patent Owner’s interpretation stating: “We agree with the Examiner that this argument is unpersuasive because ‘[t]he claim language simply requires interference of the sound[;] it does not say how this is accomplished and it does not specify that the program or data should continue in execution. Once a program or data is rendered unusable and/or erased it does not generate sound.’” Ex. 1010, *Reexam 90/010666* at Jan. 11, 2013 PTAB Decision, 47 (citing to *id.* at Apr. 5, 2012 Examiner’s Answer, 56).

f) storage means for the host facility (Claim 8)

The recited function is “storing at least one of the program, the data, and a combination of the program and data together with the duration data indicative of the predetermined time period to be counted by said clock means.” Ex. 1001, ‘520 Patent at 15:39-43. The disclosed structure for performing the function is one or more databases (i.e., “game data base 101,” “karaoke data base 103,” and “other data base 105”). *Id.* at Fig. 2, 4:31-32, 10:8-12. The ‘520 Patent does not disclose where or how “duration data indicative of the predetermined time period to be counted by said clock means” is stored. The ‘520 Patent discloses only that the predetermined time period is “sent out to the personal communicator” (presumably from the host facility). *Id.* at 6:17-22.

g) sending out means for the host facility (Claim 8)

The recited function is “sending out at least one of the program, the data, and a combination of the program and data together with the duration data stored in said storage means to said communication terminal device.” *Id.* at 15:44-48. The disclosed structure for performing the function is a headend or antenna. *Id.* at Fig. 2 (item 130), Fig. 10 (item 150), 4:32-45, 6:15-22, 8:56-60, 11:10-17, 2:32-36. The ‘520 Patent discloses only that the predetermined time period is “sent out to the personal communicator,” but does not state that it is sent “together with” the program and/or data. *Id.* at 6:15-22.

h) second clock means (Claim 9)

The recited function is “keeping a second predetermined time period shorter than said predetermined time period counted by said clock means.” *Id.* at 15:51-53. The disclosed structure for performing the function is a general purpose computer programmed to perform steps S1310 and S1320 depicted in Figure 12 and described at 11:45-52.

i) alarm means (Claim 9)

The recited function is “issuing an alarm when said second clock means counts said second predetermined time period, and thereby informing that interference by said interference means with execution of said executing means will soon be performed.” *Id.* at 15:55-59. The disclosed structure for performing the function is a general purpose computer programmed to perform step S1330 depicted in Figure 12 and described at 11:45-52 and 6:51-64.

j) third clock means (Claim 10)

The stated function is “keeping a third predetermined time period after said interference means interferes with execution of said executing means.” *Id.* at 15:62-64. The disclosed structure for performing the function is a general purpose computer programmed to perform step S1380 depicted in Figure 12 and described at 11:65-12:4.

k) interference stop instruction means (Claim 10)

The recited function is “instructing to stop the interference performed by said interference means.” *Id.* at 15:65-66. The disclosed structure for performing the

function is an input device for obtaining an instruction to pay the surcharge through, for example, keys on a keyboard. *Id.* at 11:1-5, 12:16-19; *also id.* at 4:20-26, 12:66-13:2.

l) means for stopping the interference (Claim 10)

The recited function is “stopping the interference performed by said interference means and thereby allowing resumption of execution of the program or data processing performed by said executing means when said interference stop instruction means receives the instruction before said third clock means counts said third predetermined time period.” *Id.* at 16:1-7. The disclosed structure for performing the function is a general purpose computer programmed to: 1) determine whether or not a surcharge is paid (step S1370 depicted in Figure 12); and 2) permit the program or data to be continuously used (step S1390 depicted in Figure 12). *Id.* at 11:65-12:7, 12:16-19, Fig. 12; *see also id.* at 4:20-26, 10:55-64.

m) display means (Claim 12)

The recited function is “a screen on which the progress of execution of program or data processing is displayed.” *Id.* at 16:13-14. The disclosed structure for performing the function is a monitor. *Id.* at Fig. 1 (item 16), Fig. 8C, 9:61-10:4, 4:48-52.

n) sound generating means (Claim 14)

The recited function is “generating a predetermined sound in accordance with the progress of execution of the program or data processing.” *Id.* at 16:21-23. The disclosed structure for performing the function is a speaker. *Id.* at Fig. 1 (item 13), 4:48-51, 9:61-10:4, 10:30-33.

2. Other Claim Term Constructions

a) at least one of the program, the data, and a combination of the program and data (Claim 8)

Patent Owner has applied two different constructions for the phrase “at least one of the program, the data, and a combination of the program and data,” which phrase appears in independent claim 8. Ex. 1001, ‘520 *Patent* at 15:15-17. Patent Owner used one construction for its infringement contentions in litigation and another construction in reexamination proceedings on related patents. The phrase “at least one of the program, the data, and a combination of the program and data” appears identically in the preamble of claims 1 and 5 of **Ex. 1021**, *U.S. Patent 6,488,508* (“the ‘508 Patent”) and the preamble of claims 1, 5, and 8 of **Ex. 1022**, *U.S. Patent 6,875,021* (“the ‘021 Patent”). Both the ‘508 and ‘021 Patents claim priority as continuation applications to the ‘520 Patent. The ‘508 and ‘021 Patents are subject to co-pending *inter partes* reexamination Control Nos. 95/001234 and 95/001237, respectively (collectively “Child Patents Reexam Proceedings”).

(1) Patent Owner’s Litigation Construction: “the program and/or data”

Prior to the various reexamination proceedings of its patents, Patent Owner specifically stated that “sending out at least one of the program, the data, and a combination of the program and data” is met by “transmitting the program and/or data” and “deleting at least one of the program, the data, and a combination of the program and data” is met by “deleting the program, the data, or the program” Ex.

1023, *Infringement Contentions against SCEA* at 11, 12 (emphasis added). This interpretation is supported by the ‘520 Patent specification: “In the embodiment of the invention, data, a program, or a combination of the two is transmitted from a host facility to a communicator as a communication terminal device.” Ex. 1001, ‘520 Patent at 4:3-5 (emphasis added). Petitioners apply this disjunctive interpretation (i.e., “the program and/or the data”) of this claim phrase at issue in Section V below.

- (2) Patent Owner’s Reexamination Construction: “at least one of the program, at least one of the data, and at least one of a combination of the program and data”

As explained above, the claim phrase at issue appears identically in claims subject to the Child Patents Reexam Proceedings. In those proceedings, Patent Owner argues that the claim phrase at issue means “at least one of the program, at least one of the data, and at least one of a combination of the program and data.” Specifically, Patent Owner contends “the applied reference must teach a system capable of transmitting separate ‘program’ and ‘data,’ and also a ‘combination of program and data.” Ex. 1024, *Reexam 95/001234 Patent Owner Appeal Br.* at 7 (emphasis added). Patent Owner alleges that the specification “states that a ‘combination of program and data’ may be transmitted in *addition* to either the program or the data.” Ex. 1025, *Reexam 95/001234 Patent Owner Response dated May 20, 2013* at 11 (citing to Ex. 1021, ‘508 Patent at 4:21-25, which corresponds to Ex. 1001, ‘520 Patent at 4:14-19)(emphasis original). To date, Patent Owner has remained silent on the meaning of the claim phrase at issue in the ‘520 Patent Prior Reexams.

Patent Owner's construction of this phrase in the Child Patents Reexam Proceedings (the "Reexamination Construction") is based on the misconception that the purported three elements of the claim term phrase at issue (i.e., the program, the data, and a combination of the program and data) are "alternative" choices. Ex. 1024, *Reexam 95/001234 Patent Owner Appeal Br.* at 9. However, to be "alternative" choices, the purported three elements would have to be identifiably distinct from each other, such that each element could be stored and transmitted *separately*. Yet, the purported third element is explicitly "a combination" of the first and second elements, and therefore the purported third element cannot be, and is not, a distinct element. In rejecting Patent Owner's Reexamination Construction, the Examiner in the Child Patents Reexam Proceedings determined that the term "combination" is vague: "[T]he word combination does not define the manner of the combination (for example: what constitutes the combination, is it one unit or multiple units transmitted over time; and on[e] definition of a combination is that the program is the executed portion of software and the data is the portion presented to the end-user/consumer/gamer.)" Ex. 1026, *Reexam 95/001234 Action Closing Prosecution* at 53. If Patent Owner's Reexamination Construction were adopted, a person of ordinary skill in the art ("skilled artisan") would not know whether the limitation is or is not met and thus whether an element is or is not within the scope of the claim. Ex. 1011, *Kitchen Decl.* at ¶ 71. When sending a combination of program and data, it is absolutely impossible to determine applying the claim language as Patent Owner proposes, whether the system is also

sending, by the same transmission, both a program and data. *Id.* at ¶ 68. One of skill cannot apply the claim language, as interpreted by Patent Owner, with any reasonable clarity as to the scope of what does or does not satisfy this limitation. *Id.* at ¶ 69.

By way of additional example, Patent Owner's Reexamination Construction would not permit a determination, with reasonable certainty, of whether a video game is a "program," "data," or "a combination of program and data." Petitioners contend that video games comprise both programs and game play data. *See id.* at ¶ 70. Yet, Patent Owner contends that '508 Patent "groups a 'video game' as a program." Ex. 1024, *Reexam Control No. 95/001234 Patent Owner Appeal Br.* at 11. However, the '520 Patent never refers to a "game" or "video game" as a "program." To the contrary, the '520 Patent only describes transmission of a "game" as transmission of "data." *See, e.g.*, Ex. 1001, '520 Patent at 2:18-21 ("When the communication terminal device requests the host facility to provide game data, the host facility sends out the corresponding game data to the communication terminal device via the communication lines.") (emphasis added); 2:37-41 ("By utilizing the communication system, the player need not purchase a game cassette or other software for playing video games, since the game data is provided by the host facility, which received the game data request sent by the player from his communication terminal device.") (emphasis added); *also id.* at 1:15-20; 1:57-67; 2:25-32; 2:49-65; 4:5-6; 4:60-62; 6:14-7:59; 10:15-11:35; Figs. 2, 6. Patent Owner's proposed Reexamination Construction of the claim phrase at issue does not provide

reasonable certainty as to the scope of the claim, and is impossibly infused with confusion and ambiguity.

Patent Owner's Reexamination Construction thus renders the claim phrase at issue indefinite. Namely, 35 U.S.C. § 112, ¶ 2 requires that a patent specification "conclude with one or more claims *particularly pointing out and distinctly claiming* the subject matter which the applicant regards as [the] invention." *Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S.Ct. 2120, 2124 (2014). A patent is invalid for indefiniteness if its claims, read in light of the specification delineating the patent, and the prosecution history, fail to inform, with reasonable certainty, those skilled in the art about the scope of the invention. *Id.* Here, one of skill in the art cannot discern with reasonable certainty the scope of the alleged invention if Patent Owner's Reexamination Construction is adopted. Ex. 1011, *Kitchen Decl.* at ¶ 69.

To the extent the Board determines that the Patent Owner's Reexamination Construction is correct, Petitioners submit, in light of the arguments above, that the transmission of the combination of program and data would necessarily also satisfy the requirement of transmitting a program and transmitting data. Assuming this application of Patent Owner's indefinite Reexamination Construction, the prior art charted below fully discloses this claim limitation as detailed in the prior art mappings.

V. DETAILED GROUNDS FOR UNPATENTABILITY

A. Claims 8, 11, 13, and 14 Are Unpatentable under 35 USC § 103(a) as Obvious over Chernow in view of Tsumura

Chernow and Tsumura were cited and considered during the Prior Reexams, but the specific combination of Chernow and Tsumura was not used to reject claim 8. *See* Section II.B above. Tsumura's express teaching of the clock means limitation recited in claim 8 was acknowledged by the Examiner and the PTAB, was not refuted by Patent Owner, but was never applied to claim 8 in the Prior Reexams. *See* Ex. 1010, *Reexam 90/010666* at Jan 11, 2013 PTAB Decision, 36 ("Appellant does not deny that Tsumura describes measuring a predetermined time period after the start of execution of the received program."); *see also* Section II.B above.

As agreed upon by the Examiner and Patent Owner in the Prior Reexams, Chernow's disclosed "lease period expires a predetermined time period after the game data are *received*, regardless of whether or when the game data are used." Ex. 1010, *Reexam 90/010666* at Jan. 11, 2013 PTAB Decision, 29 (emphasis in original). As the Examiner previously found: "Tsumura demonstrated that it was known at the time of invention to provide a clock means specifically for tracking a predetermined time period after execution of a program or data processing starts, that is during execution of the software ... and Tsumura demonstrated interfering based on this clock means" *Id.* at Apr. 5, 2012 Examiner's Answer, 12-13 (citing Ex. 1003, *Tsumura* at 9:56-65). It would have been obvious to a skilled artisan at the alleged time of invention to modify Chernow's software distribution system, such that instead of being measured from receipt of the software, the term of use prior to self-destruction of the software (i.e., interference) is measured from the start of execution as taught by Tsumura.

Upon reading the disclosure of Tsumura, a skilled artisan would have recognized that modifying Chernow to measure the lease period (i.e., predetermined time period) from the start of execution of the software could be desirable. Ex. 1011, *Kitchen Decl.* at ¶ 77. For example, Tsumura specifically discloses that “[i]n the case of games like role playing games that can take a long time to play, ... it would be desirable to incorporate an additional charge facility that would function automatically at fixed intervals during the course of a game.” Ex. 1003, *Tsumura* at 9:56-60. A skilled artisan would have also appreciated that this improvement to Chernow would yield a system that would make it “possible for the player to be allocated an amount of playing time corresponding to the amount of money inserted and for the remaining value to be counted down as the player proceeded with the game.” Ex. 1003, *Tsumura* at 9:36-39. Such a modification could be achieved simply by modifying the start time for measuring the “term of use.” Ex. 1011, *Kitchen Decl.* at ¶ 79. Thus, it would have been natural and an application of nothing more than ordinary skill and common sense for a skilled artisan to combine the system of Chernow with use of a lease period that starts upon execution of software as disclosed in Tsumura. *Id.* Furthermore, such a modification would have yielded predictable results without undue experimentation. The start time for the measurement of the “term of use” is a minor modification that would involve minor software adjustments and the results would be certain. *Id.* Chernow and Tsumura are in the same field of endeavor as the ‘520 Patent – interactive communication systems for transmitting software from a host facility to communication terminal devices – and are

each, therefore, analogous to the '520 Patent. *See, e.g.*, Ex. 1001, '520 Patent at 1:9-11, Ex. 1002, *Chernow* at 1:5-8, Ex. 1003, *Tsumura* at 1:16-23.

Claim 8	Obvious Over Chernow (Ex. 1002) in view of Tsumura (Ex. 1003)
<p>8. A communication system for transmitting at least one of the program, the data, and a combination of the program and data from a host facility to a communication terminal device, said communication terminal device comprising:</p>	<p>Chernow discloses providing software or "Target Programs," such as games (i.e., combination of program and data), spreadsheets, word processors, etc., which may be used for a limited time on a user's computer after downloading it from a host computer. Ex. 1011, <i>Kitchen Decl.</i> at ¶¶ 72, 75.</p> <p>"It is an object of this invention to provide a means for selling and distributing protected software using standard telephone lines for transferring the software from the seller to the purchaser." Ex. 1002, <i>Chernow</i> at 1:67-2:2</p> <p>"The hardware in its simplest form comprises a computer with a modem attached to an ordinary telephone line. In a large installation, the seller's computer might be a main frame with many telephone lines and modems. Whatever the size of the installation, the computer and modems are preferably able to support both incoming and outgoing phone calls [i.e. bi-directional communication] as well as a variety of baud rates." <i>Id.</i> at 2:22-30.</p> <p>"The Database contains an index file of all available Target Programs for lease or purchase. This index is accessible by customers who telephone into the central computer. It also contains pricing information, approximate time to transfer and a brief description of each Target Program.</p> <p>The Database is organized by category, such as games, spread sheets, word processors, etc. Subcategories may exist, e.g., under games one might expect to find: mystery, adventure, learning, etc. The customer has the capability to move freely across categories and subcategories until a desired Target Program is located. Once a desired program is found, the customer can request to review a brief description of the Target Program, the cost for lease or purchase and the approximate transfer time. If the customer wishes to make a sale, the Interactive Program takes over and continues the dialogue with the customer." <i>Id.</i> at 8:62-9:12.</p>
<p>[a] an input device for</p>	<p>Chernow discloses a keyboard for executing leased software. Namely, Chernow discloses that during initialization the user's keyboard is</p>

<p>inputting instructions to execute the program or to process the data,</p>	<p>deactivated. After the software (i.e., “Target Program”) is stored on the user’s computer, a message describing how to execute the program is displayed on the user’s monitor and the keyboard is reactivated for the user to execute the software.</p> <p>“After the Initialization Program is executed, the keyboard is deactivated.” <i>Id.</i> at 8:11-12; <i>see also id.</i> at 13:10-11.</p> <p>“r. Send a message of the satisfactory completion of the transfer of the Target Program to the customer's monitor or terminal. Describe how to execute the program and return control of the customer's computer to the customer. At this point the transfer of the purchased program has been completed.” <i>Id.</i> at 8:52-57.</p> <p>“The central station then transmits to the purchaser an Initialization Program as well as a Control Transfer Program, and then asks the purchaser to execute the Initialization Program, the function of which is to turn control of the purchaser's computer over to the central station via the modem port.” <i>Id.</i> at 2:59-64.</p>
<p>[b] receiving means for receiving one of the program, the data, and a combination of the program and data as sent out from said host facility,</p>	<p>Chernow discloses a modem (i.e., receiving means) that performs the function of receiving software (i.e., a “Target Program”) sent out from the central computer.</p> <p>“Having taken control of the purchaser's computer, the central station then instructs the purchaser's computer to load and execute the Control Transfer Program for transferring a Primary Protection Program to the purchaser. The purchaser computer then executes the Primary Protection Program, the function of which is to erase everything from memory except for the operating system to ensure there are no memory resident programs which might duplicate the program being purchased. The Primary Protection Program is then erased from memory and the Control Transfer Program is again loaded and executed.</p> <p>Under control of the Control Transfer Program, a Storing Program and the Target Program (the program being purchased) are transmitted to the purchaser. The Storing Program is a program for modifying the Target Program (the program being purchased) as the latter is being stored on the purchaser's hard disk or floppy disk.” <i>Id.</i> at 2:65-3:14.</p> <p><u>“The Control Transfer Program is a standard program used with modems to transfer files from one computer to another over telephone lines. It is used in place of the customer's Transfer</u></p>

	<p>Program to insure that no unauthorized copies of the transferred files are stored during transfer from the central computer.” <i>Id.</i> at 9:29-34 (emphasis added); <i>see also id.</i> at 10:33-45, 8:6-13, 9:14-21, 10:24-25, 10:54-65.</p>
<p>[c] storage means for storing the program, the data, or a combination of the program and data received by said receiving means,</p>	<p>Chernow describes a hard disk or floppy disk (i.e., storage means) for storing received software (i.e., “Target Program”).</p> <p>“The Storing Program is a program for modifying the Target Program (the program being purchased) as the latter is being stored on the purchaser's hard disk or floppy disk.” <i>Id.</i> at 3:11-14.</p> <p>“When the seller's computer transmits the software to the purchaser's computer it also transmits a Storing Program whose sole purpose is to store the transmitted software on either floppy disk or hard disk depending on the purchaser's desires.” <i>Id.</i> at 4:16-22; <i>see also id.</i> at 4:46-51, 8:39-48.</p>
<p>[d] executing means for executing the program stored in said storage means or executing data processing by using the data stored in said storage means, in accordance with instructions from said input device,</p>	<p>Chernow discloses a computer (i.e., executing means) programmed to start execution of the stored leased software (i.e., “Target Program”) in response to an instruction from a keyboard (i.e., an input device).</p> <p>“After the Initialization Program is executed, the keyboard is deactivated.” <i>Id.</i> at 8:11-12; <i>see also id.</i> at 2:65-3:14.</p> <p>“r. Send a message of the satisfactory completion of the transfer of the Target Program to the customer's monitor or terminal. Describe how to execute the program and return control of the customer's computer to the customer. At this point the transfer of the purchased program has been completed.” <i>Id.</i> at 8:52-57.</p> <p>“The term of use for the leased software can either be a period of time or a number of runs. The specific information can be encryptically stored within the leased software. When leased software is used, the number of runs remaining under lease or a periodic update of the time remaining under lease is encryptically recorded within the program image in memory and on disk. At the conclusion of the term of use, the software renders itself unusable or erases itself from the user's disk.” <i>Id.</i> at 5:10-19.</p>
<p>[e] clock means for keeping a predetermined time period after said executing</p>	<p>Chernow discloses a CPU programmed to keep track of a term of use (i.e., predetermined time period), where the term of use is measured: 1) after the leased software is received, regardless of whether or when the software is used; or 2) based on a number of runs.</p> <p>“Another object of this invention is to permit the purchaser to rent the protected software for a period of time after which it will self</p>

<p>means starts execution of the program or data processing, and</p>	<p>destruct.” <i>Id.</i> at 2:3-5.</p> <p>“The term of use for the leased software can either be a period of time or a number of runs. The specific information can be encryptically stored within the leased software. When leased software is used, the number of runs remaining under lease or a periodic update of the time remaining under lease is encryptically recorded within the program image in memory and on disk. At the conclusion of the term of use, the software renders itself unusable or erases itself from the user's disk.” <i>Id.</i> at 5:10-19.</p> <p>Chernow, however, does not disclose keeping a predetermined time period after the start of execution. Tsumura discloses keeping a predetermined time period after the start of execution. Namely, Tsumura discloses allocating an amount of “playing time” corresponding to the amount of money a player pays, where the remaining time is “counted down” as the player proceeds with the game. Tsumura also discloses that if a user does not pay an additional fee “before a predetermined length of time has elapsed” the game will be discontinued. Tsumura discloses the structure for performing the function is a CPU programmed to calculate the unit time and determine when the predetermined length of time has elapsed:</p> <p>“First, with the game machine showing the initial screen, the player puts a coin into the coin input unit 76 to pay for the use of the machine. Data is then transferred by way of a transmission path from the receiving device 75 and a game menu is downloaded and presented in the display 74 in the form of a list. Since the insertion of a suitable coin or coins into the machine will enable key input, it will now be possible for, the player to use the input keys 73 to select the game he or she wishes to play and, in the event that an additional charge has to be paid, this information will also be presented in the display. If no extra charge needs to be paid, the game program requested will be received immediately and written into the RAM 72. Up to now, we have assumed that the game charge is paid by inserting a coin into a coin input unit 76 and by inserting additional coins if necessary. <u>If the coin input unit 76 was replaced by a fee input unit that accepted paper money instead, for example, it would be possible for the player to be allocated an amount of playing time corresponding to the amount of money inserted and for the remaining value to be counted down as the player proceeded with the game.</u> The adoption of this method</p>
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	<p>would mean that, once the game data had been received, the player could play the game in accordance with the contents of the data held in the RAM 72. [...]</p> <p>In the case of games like role playing games that can take a long time to play, on the other hand, <u>it would be desirable to incorporate an additional charge facility that would function automatically at fixed intervals during the course of a game. The CPU's 71 internal clock, for example, could be used to calculate the unit time and to call for the insertion of an additional fee before a predetermined length of time has elapsed, and to cause the game to be discontinued as soon as that length of time has elapsed if the required additional fee has not been paid.</u> An alternative arrangement would be to cause the game program to pause for a predetermined length of time after the game has been discontinued in order to allow time for the player to put more money in the machine. The pause could be released and the game continued if the requisite additional charge is paid within the time allowed.” Ex. 1003, <i>Tsumura</i> at 9:14-10:4 (emphasis added); <i>see also id.</i> at Fig. 7 (item 71), 2:3-19.</p>
<p>[f] interference means for interfering with execution of said executing means when said clock means counts said predetermined time period; and</p>	<p>Chernow discloses a computer (i.e., interference means) programmed to cause the leased software to render itself unusable or erase itself after calculating that the term of use has expired.</p> <p>“Another object of this invention is to permit the purchaser to rent the protected software for a period of time after which it will self destruct.” Ex. 1002, <i>Chernow</i> at 2:3-5.</p> <p>“The term of use for the leased software can either be a period of time or a number of runs. The specific information can be encryptically stored within the leased software. When leased software is used, the number of runs remaining under lease or a periodic update of the time remaining under lease is encryptically recorded within the program image in memory and on disk. At the conclusion of the term of use, the software renders itself unusable or erases itself from the user's disk.” <i>Id.</i> at 5:10-19.</p>
<p>said host facility comprising: [g] storage means for storing at least</p>	<p>Chernow discloses a central computer with a database (i.e., storage means) for storing software (i.e., “Target Programs”) together the details of lease arrangements (i.e., duration data).</p> <p>“The invention includes both hardware and software located on the premises of the seller. The hardware in its simplest form comprises a computer with a modem attached to an ordinary telephone line.</p>

<p>one of the program, the data, and a combination of the program and data together with the duration data indicative of the predetermined time period to be counted by said clock means, and</p>	<p>In a large installation, the seller's computer might be a main frame with many telephone lines and modems. Whatever the size of the installation, the computer and modems are preferably able to support both incoming and outgoing phone calls as well as a variety of baud rates. The computer also contains <u>sufficient memory and disk space to accommodate a library of the software programs available for lease or sale</u>, an index file to permit buyers to browse through the names, brief descriptions and <u>prices for leasing or purchasing of the available software</u>, and the software necessary to perform the requisite tasks.” <i>Id.</i> at 2:22-36 (emphasis added).</p> <p>“c. The central computer is contacted to determine if the ‘Target Program is to be leased or purchased. An alternative to this contact could be accomplished by preprogramming the Storing Program with this information prior to transferring it to the customer's computer. If leased, the <u>details of the lease arranged are passed onto the Storing Program</u> so that they may be incorporated into the Target Program. This information is encrypted by the Storage Program and placed in the ‘Target Program.” <i>Id.</i> at 10:3-12 (emphasis added).</p> <p>“The Database contains an index file of all available ‘Target Programs for <u>lease or purchase</u>. This index is accessible by customers who telephone into the central computer. It also contains <u>pricing information</u>, approximate time to transfer and a brief description of each Target Program.</p> <p>The Database is organized by category, such as games, spread sheets, word processors, etc. Subcategories may exist, e.g., under games one might expect to find: mystery, adventure, learning, etc. The customer has the capability to move freely across categories and subcategories until a desired Target Program is located. Once a desired program is found, the customer can request to review a brief description of the ‘Target Program, the <u>cost for lease or purchase</u> and the approximate transfer time. If the customer wishes to make a sale, the Interactive Program takes over and continues the dialogue with the customer.” <i>Id.</i> at 8:62-9:12 (emphasis added).</p> <p>“The <u>storage capacity must be sufficient to accommodate all of the programs required to interact with the customer</u> and complete a sale, the database, and one each of the complete stock of ‘Target Programs for sale. If accounting and billing are to be performed on this computer, their programs and data files must also be included</p>
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	in determining the required storage capacity. Hard disks with 40 megabyte capacity should be sufficient to meet the needs of most installations. Such disks are readily available at reasonable prices for use with PCs.” <i>Id.</i> at 11:1-11 (emphasis added); <i>generally id.</i> at 8:6-61.
[h] sending out means for sending out at least one of the program, the data, and a combination of the program and data together with the duration data stored in said storage means to said communication terminal device.	<p>Chernow discloses a central computer that includes a modem (i.e., sending out means) for transmitting software and lease information (i.e., duration data) stored in the database to the user’s computer. <i>See</i> Ex. 1011, <i>Kitchen Decl.</i> at ¶¶ 80-82.</p> <p><u>“The invention includes both hardware and software located on the premises of the seller. The hardware in its simplest form comprises a computer with a modem attached to an ordinary telephone line. In a large installation, the seller's computer might be a main frame with many telephone lines and modems. Whatever the size of the installation, the computer and modems are preferably able to support both incoming and outgoing phone calls as well as a variety of baud rates. The computer also contains sufficient memory and disk space to accommodate a library of the software programs available for lease or sale, an index file to permit buyers to browse through the names, brief descriptions and prices for leasing or purchasing of the available software, and the software necessary to perform the requisite tasks.”</u> Ex. 1002, <i>Chernow</i> at 2:22-36 (emphasis added); <i>also id.</i> at 10:33-46, 12:28-30.</p> <p><u>“c. The central computer is contacted to determine if the ‘Target Program is to be leased or purchased. An alternative to this contact could be accomplished by preprogramming the Storing Program with this information prior to transferring it to the customer's computer. If leased, the details of the lease arranged are passed onto the Storing Program so that they may be incorporated into the Target Program. This information is encrypted by the Storage Program and placed in the ‘Target Program.”</u> <i>Id.</i> at 10:3-12 (emphasis added); <i>see also id.</i> at 9:29-34.</p>
Claim 11	Obvious Over Chernow (Ex. 1002) in view of Tsumura (Ex. 1003)
11. The communication system according to claim 8, wherein said interference means comprises means for deleting at least one of the program, the data,	<p>Chernow in view of Tsumura as applied to claim 8. Chernow discloses a computer (i.e., interference means) programmed to cause the leased software to erase itself after calculating that the term of use has expired.</p> <p>“Another object of this invention is to permit the purchaser to rent the protected software for a period of</p>

and a combination of the program and data stored in said storage means.	time after which it will self destruct.” Ex. 1002, <i>Chernow</i> at 2:3-5. “At the conclusion of the term of use, the software renders itself unusable or erases itself from the user's disk.” <i>Id.</i> at 5:16-19.
Claim 13	Obvious Over Chernow (Ex. 1002) in view of Tsumura (Ex. 1003)
13. The communication system according to claim 8, wherein said interference means comprises means for invalidating the operation of said input device.	Chernow in view of Tsumura as applied to claim 8. Chernow discloses deactivating the user’s keyboard (i.e., invalidating operation) when the central computer takes control of the customer’s computer to transfer and store the leased software. <i>See, e.g.</i> , Ex. 1002, <i>Chernow</i> at 8:11-12. Chernow also discloses that “[a]t the conclusion of the term of use, the software renders itself unusable or erases itself from the user's disk.” <i>Id.</i> at 5:16-19. Chernow, however, does not disclose how the software “renders itself unusable” or that the keyboard is deactivated for this purpose. Tsumura discloses that a user can pay for an “amount of time” (Ex. 1003, <i>Tsumura</i> at 9:34-39) to play a downloaded game, after which the game will pause and the user will be prompted to insert an additional fee (<i>id.</i> at 9:65-10:4). Tsumura also specifically discloses that the input device is only enabled once a user has paid an appropriate amount of money. <i>Id.</i> at 9:24-29 (“Since the insertion of a suitable coin or coins into the machine will enable key input, it will now be possible for, the player to use input keys 73 to select the game he or she wishes to play ...”). As such, Tsumura discloses a CPU for disabling the operation of an input device after an amount of time has elapsed and the game is paused.
Claim 14	Obvious Over Chernow (Ex. 1002) in view of Tsumura (Ex. 1003)
14. The communication system according to claim 8, further comprising [a] sound generating means for generating a predetermined	Chernow in view of Tsumura as applied to claim 8. Chernow discloses leasing software, such as games, to a user’s computer for a prescribed term of use. Ex. 1002, <i>Chernow</i> at 4:68-5:9. Chernow does not expressly disclose that the leased software produces sounds. Tsumura, however, discloses a sound production device for generating sounds in accordance with gameplay. “The configuration of the receiving device 13 is shown in FIG. 3. ... 38 is an output terminal which outputs both display and audio signals to externally connected visual display and audio units to enable the game to proceed.” Ex. 1003, <i>Tsumura</i> at 4:40-52.

sound in accordance with the progress of execution of the program or data processing,	“In this embodiment, the data processing device 37 is located inside the computer game machine and its output is connected to the display and <u>sound production device</u> (not shown in the drawing) by way of an output terminal 38.” <i>Id.</i> at 6:10-14 (emphasis added); <i>see also id.</i> at Fig. 3 (item 38).
[b] wherein said interference means comprises means for preventing said sound generating means from generating the sound.	Chernow discloses a computer programmed to cause the leased software to render itself unusable or erase itself after calculating that the term of use has expired. Once a program is rendered unusable and/or erased, it does not generate sound. “At the conclusion of the term of use, the software renders itself unusable or erases itself from the user's disk.” Ex. 1002, <i>Chernow</i> at 5:16-19.

B. Claims 8-11 and 13-14 Are Unpatentable under 35 USC § 103(a) as Obvious over the Okamoto Japanese Parent in view of Tsumura

The Okamoto Japanese Parent was cited, but was not substantively considered during the Prior Reexams because, as discussed above, the Examiner incorrectly determined that Claims 8-14 were entitled to the claimed 1993 priority date of the ‘520 Patent and then refused to consider the Okamoto Japanese Parent as prior art. Ex. 1010, *Reexam 90/010666* at Dec. 3, 2009 Order Granting Request, 55-56. Claims 8-14 of the ‘520 Patent are only entitled to a priority date of July 2, 1998. *See* Section III.D above. The Okamoto Japanese Parent was filed May 10, 1993 and published December 2, 1994 and is therefore prior art under 35 U.S.C. § 102(b). *In re Chu*, 66 F.3d 292, 296-97 (Fed. Cir. 1995).

As discussed above in Sections II.B, Tsumura was cited and considered during the Prior Reexams, but was not used to reject claim 8. Tsumura expressly discloses the clock means limitation that the PTAB found missing from Chernow with respect to

claim 8. *See* Section II.B above. Upon reading the disclosure of Tsumura, a skilled artisan would have recognized that modifying the Okamoto Japanese Parent to measure the lease period (i.e., predetermined time period) from the start of execution of the software could be desirable. Ex. 1011, *Kitchen Decl.* at ¶ 88. A skilled artisan would have recognized that modifying the Okamoto Japanese Parent to interfere with execution of software for a specified period of time and then allow the resumption of the software execution after payment of an additional fee as taught by Tsumura could also be desirable. *Id.* at ¶¶ 89-90. For example, Tsumura discloses that “[i]n the case of games like role playing games that can take a long time to play, ... it would be desirable to incorporate an additional charge facility that would function automatically at fixed intervals during the course of a game.” Ex. 1003, *Tsumura* at 9:56-60. A skilled artisan would have also appreciated that this improvement to the Okamoto Japanese Parent would yield a system that would make it “possible for the player to be allocated an amount of playing time corresponding to the amount of money inserted and for the remaining value to be counted down as the player proceeded with the game.” Ex. 1003, *Tsumura* at 9:36-39. Such a modification could be achieved simply by modifying the start time for measuring the “specific time” by using Tsumura’s “term of use.” Ex. 1011, *Kitchen Decl.* at ¶ 91. Thus, it would have been natural and an application of nothing more than ordinary skill and common sense for a skilled artisan to combine the system of the Okamoto Japanese Parent with use of a lease period that starts upon execution of software as disclosed in Tsumura. *Id.* Furthermore, such modifications

would have yielded predictable results without undue experimentation. *Id.* The Okamoto Japanese Parent and Tsumura are in the same field of endeavor as the ‘520 Patent – interactive communication systems for transmitting game software from a host facility to communication terminal devices – and are each, therefore, analogous to the ‘520 Patent. *See, e.g.,* Ex. 1001, ‘520 Patent at 1:9-11; Ex. 1003, Tsumura at 1:16-23; Ex. 1005, Okamoto Japanese Parent at [0001], Abstract.

Claim 8	Obvious Over Okamoto Japanese Parent (Ex. 1005) in view of Tsumura (Ex. 1003)
<p>8. A communication system for transmitting at least one of the program, the data, and a combination of the program and data from a host facility to a communication terminal device, said communication terminal device comprising:</p>	<p>Okamoto Japanese Parent discloses a communication system for transmitting programs and/or data from a host facility to a communication terminal device at a remote location.</p> <p>“Figure 1 is a block drawing of the personal communicator 1 of this embodiment; figure 2 is a block drawing of the software distribution system using the said personal communicator 1. As shown in figure 1, said distribution center comprise a distribution center 100, a personal communicator 1, and transmission paths 200 as communication lines which connect the distribution center and personal communicator 1.” Ex. 1005, <i>Okamoto Japanese Parent</i> at [0018].</p> <p>“At the distribution center 100 (figure 2), the received request data is input by the control unit 120 via the head end 130. Then, game information corresponding to the request is retrieved from the game software game data base 101 by controlling the game information transmitter 111. The retrieved game information is transmitted via the head end 130 to the transmission paths 200 and is transferred to the applicable personal communicator 1.” <i>Id.</i> at [0032]; <i>also</i> [0001], [0019]-[0020], [0045], [0052], Claims 1, 3- 5.</p>
<p>an input device for inputting instructions to execute the program or to process the data,</p>	<p>Okamoto Japanese Parent discloses that input device 6 and/or control unit 31 provide processing instructions and allow a player to play a game.</p> <p><i>See id.</i> at Fig. 1 (items 6, 31).</p> <p>“The input device 6 may be a keyboard or a mouse and the like, and is used by a user of the communicator to input a desired game</p>

	<p>software number or the desired karaoke music number to be played or other processing instructions. When a control unit 31, which is for exclusive use for playing games, is connected to the control unit connector 21, the control unit 31 can be operated only for playing game. The control unit 31 is provided with a joy stick or other control button widely provided on TV games and the like.” <i>Id.</i> at [0022].</p> <p>“When, for example, a game start operation is instructed, the game information stored in the memory 8 is started.” <i>Id.</i> at [0033].</p>
receiving means for receiving one of the program, the data, and a combination of the program and data as sent out from said host facility,	<p>Okamoto Japanese Parent discloses a modem (i.e., receiving means) for receiving programs and/or data sent out from the host facility.</p> <p><i>See id.</i> at Fig. 1 (item 3); <i>see also id.</i> at Fig. 6 (step S1120).</p> <p>“The terminal modem 3 is connected to the transmission paths 200 and comprises a modulator/demodulator 3a and a video tuner 3b which selects a channel of the images.” <i>Id.</i> at [0022].</p> <p>“Turning back to figure 6, the game information is received at the personal communicator 1 at step S1120 and stored in the memory 8 at step S1130.” <i>Id.</i> at [0033].</p> <p>“The melody data received at the personal communicator 1 via a modulator – demodulator 3a is temporarily stored in the memory 8.” <i>Id.</i> at [0046].</p>
storage means for storing the program, the data, or a combination of the program and data received by said receiving means,	<p>Okamoto Japanese Parent discloses a memory (i.e., storage means) for storing received programs and/or data.</p> <p><i>See id.</i> at Fig. 1 (item 8); <i>see also id.</i> at Fig. 6 (step S1130).</p> <p>“Turning back to figure 6, the game information is received at the personal communicator 1 at step S1120 and stored in the memory 8 at step S1130.” <i>Id.</i> at [0033]; <i>also id.</i> at [0046], [0039].</p>
executing means for executing the program stored in said storage means or executing data processing by using the data stored in said storage means, in	<p>Okamoto Japanese Parent discloses a CPU (i.e., executing means) programmed to start execution of the program and/or processing of the data stored in memory in response to a start instruction from an input device.</p> <p><i>See id.</i> at Fig. 1 (item 5).</p> <p>“Next, the control executed in CPU 5 will be now explained.” <i>Id.</i> at [0024].</p> <p>“Turning back to figure 6, the game information is received at the personal communicator 1 at step S1120 and stored in the memory 8</p>

<p>accordance with instructions from said input device,</p>	<p>at step S1130. When the storage of the game information into the memory 8 is completed, the reception completion is indicated on the monitor 16 at step S1140. Further, reception completion data is transmitted to the distribution center 100 at step S1150, thus this processing routine is completed for now, and awaits the next operation. <u>When, for example, a game start operation is instructed, the game information stored in the memory 8 is started.</u>” <i>Id.</i> at [0033] (emphasis added).</p> <p>“<u>The input device 6 may be a keyboard or a mouse and the like, and is used by a user of the communicator to input a desired game software number or the desired karaoke music number to be played or other processing instructions.</u> When a control unit 31, which is for exclusive use for playing games, is connected to the control unit connector 21, the control unit 31 can be operated only for playing game. The control unit 31 is provided with a joy stick or other control button widely provided on TV games and the like.” <i>Id.</i> at [0022] (emphasis added).</p>
<p>clock means for keeping a predetermined time period after said executing means starts execution of the program or data processing, and</p>	<p>Okamoto Japanese Parent discloses a CPU programmed to retrieve the stored reception completion time, calculate elapsed time, and determine when a specified time after reception completion has elapsed.</p> <p><i>See id.</i> at Fig. 7 (steps S1200, S1240, S1250); <i>also</i> Fig. 1 (item 5).</p> <p>“Turning back to figure 6, the game information is received at the personal communicator 1 at step S1120 and stored in the memory 8 at step S1130. <u>When the storage of the game information into the memory 8 is completed, the reception completion is indicated on the monitor 16 at step S1140.</u>” <i>Id.</i> at [0033] (emphasis added).</p> <p>“Next, game information automatic erasure means will be explained referring to Figure 7. <u>When the game information reception related processing shown in figure 6 is executed, the reception completion time is retrieved at step S1200.</u> Then, the current time is also retrieved and the time which has elapsed after the completion of the data receipt is calculated at step S1210. Next, it is determined at step S1220, whether or not the first specified time has elapsed. If a specified time has not elapsed, the flow goes back to the step S1210. Thus, when the first specified time has elapsed, warning is issued at step S1230. <u>Further elapsing time is calculated at step S1240, and waits for the second specified time elapse at step S1250, and if the second specified time has elapsed,</u></p>

	<p>the game information stored in the memory 8 is erased at step S1260, and the current process ends.” <i>Id.</i> at [0034] (emphasis added).</p> <p>“Furthermore, the game information temporarily stored in the memory 8 is erased in a specified time after transmission.” <i>Id.</i> at [0040].</p> <p>Okamoto Japanese Parent, however, does not disclose keeping a predetermined time period after the start of execution. Tsumura discloses keeping a predetermined time period after the start of execution. Namely, Tsumura discloses allocating an amount of “playing time” corresponding to the amount of money a player pays, where the remaining time is “counted down” as the player proceeds with the game. Tsumura also discloses that if a user does not pay an additional fee “before a predetermined length of time has elapsed” the game will be discontinued. Tsumura discloses the structure for performing the function is a CPU programmed to calculate the unit time and “determine when the predetermined length of time has elapsed.”</p> <p>“First, with the game machine showing the initial screen, the player puts a coin into the coin input unit 76 to pay for the use of the machine. Data is then transferred by way of a transmission path from the receiving device 75 and a game menu is downloaded and presented in the display 74 in the form of a list. ... Since the insertion of a suitable coin or coins into the machine will enable key input, it will now be possible for, the player to use the input keys 73 to select the game he or she wishes to play and, in the event that an additional charge has to be paid, this information will also be presented in the display. If no extra charge needs to be paid, the game program requested will be received immediately and written into the RAM 72. Up to now, we have assumed that the game charge is paid by inserting a coin into a coin input unit 76 and by inserting additional coins if necessary. <u>If the coin input unit 76 was replaced by a fee input unit that accepted paper money instead, for example, it would be possible for the player to be allocated an amount of playing time corresponding to the amount of money inserted and for the remaining value to be counted down as the player proceeded with the game.</u> The adoption of this method would mean that, once the game data had been received, the player could play the game in accordance with the contents of</p>
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	<p>the data held in the RAM 72. [...]</p> <p>In the case of games like role playing games that can take a long time to play, on the other hand, <u>it would be desirable to incorporate an additional charge facility that would function automatically at fixed intervals during the course of a game.</u> The CPU's 71 internal clock, for example, could be used to calculate the unit time and to call for the insertion of an additional fee before a <u>predetermined length of time has elapsed, and to cause the game to be discontinued as soon as that length of time has elapsed if the required additional fee has not been paid.</u> An alternative arrangement would be to cause the game program to pause for a predetermined length of time after the game has been discontinued in order to allow time for the player to put more money in the machine. The pause could be released and the game continued if the requisite additional charge is paid within the time allowed.” Ex. 1003, <i>Tsumura</i> at 9:14-10:4 (emphasis added); <i>see also id.</i> at Fig. 7 (item 71), 2:3-19.</p>
<p>interference means for interfering with execution of said executing means when said clock means counts said predetermined time period; and</p>	<p>Okamoto Japanese Parent discloses a CPU programmed to delete the program and/or data stored in the memory when the specified time has elapsed.</p> <p><i>See</i> Ex. 1005, <i>Okamoto Japanese Parent</i> at Fig. 7 (steps S1260).</p> <p>“Next, game information automatic erasure means will be explained referring to Figure 7. When the game information reception related processing shown in figure 6 is executed, the reception completion time is retrieved at step S1200. Then, the current time is also retrieved and the time which has elapsed after the completion of the data receipt is calculated at step S1210. Next, it is determined at step S1220, whether or not the first specified time has elapsed. If a specified time has not elapsed, the flow goes back to the step S1210. Thus, when the first specified time has elapsed, warning is issued at step S1230. Further elapsing time is calculated at step S1240, and waits for the second specified time elapse at step S1250, and <u>if the second specified time has elapsed, the game information stored in the memory 8 is erased at step S1260,</u> and the current process ends.” <i>Id.</i> at [0034] (emphasis added); <i>see also id.</i> at [0040], Fig. 1 (item 5).</p>
<p>said host facility comprising: storage means</p>	<p>Okamoto Japanese Parent discloses a distribution center (i.e., host facility) with databases (i.e., storage means) for storing programs and/or data. Okamoto Japanese Parent also discloses that duration</p>

<p>for storing at least one of the program, the data, and a combination of the program and data together with the duration data indicative of the predetermined time period to be counted by said clock means, and</p>	<p>data indicative of specified time periods is transmitted from the distribution center.</p> <p><i>See id.</i> at FIG. 2 (items 101, 103, and 105).</p> <p>“The <u>distribution center 100 comprises a game software data base 101, a karaoke information base 103 and other data base (group) 105</u>; a game information transmitter 111, a karaoke information transmitter 113 and other information transmitter 115 to search information from the corresponding data base of each 101, 103 and 105 and transmit them; and a control unit 120 which controls each data transmitter 111, 113, 115 and a head end 130 to output or input external signals.” <i>Id.</i> at [0019] (emphasis added).</p> <p>“At the distribution center 100 (figure 2), the received request data is input by the control unit 120 via the head end 130. Then, game information corresponding to the request is retrieved from the game software game data base 101 by controlling the game information transmitter 111. The retrieved game information is transmitted via the head end 130 to the transmission paths 200 and is transferred to the applicable personal communicator 1. <u>First and second specified times, which will be described later in detail, are also transmitted.</u>” <i>Id.</i> at [0032] (emphasis added); <i>also id.</i> at [0033] (describing personal communicator processing routine for determining when first and second specified times have elapsed).</p> <p><i>See also id.</i> at [0052] (describing other data base 105 of Figure 2).</p>
<p>sending out means for sending out at least one of the program, the data, and a combination of the program and data together with the duration data stored in said storage means to said communication terminal device.</p>	<p>Okamoto Japanese Parent discloses a head end (i.e., sending out means) for transmitting programs and/or data and duration data stored in the database to the personal communicator.</p> <p><i>Id.</i> at Fig. 2 (item 130).</p> <p>“The control unit 120 inputs via the head end 130 the request data transmitted from the personal communicator 1 via the transmission paths 200. <u>The data that corresponds with the request is retrieved from the data base 101, 103, 105 by controlling the data transmitters 111, 113, 115, and is transmitted to the transmission paths 200 via the head end 130.</u>” <i>Id.</i> at [0020] (emphasis added).</p> <p>“At the distribution center 100 (figure 2), the received request data is input by the control unit 120 via the head end 130. Then, game information corresponding to the request is retrieved from the game software game data base 101 by controlling the game information transmitter 111. <u>The retrieved game information is</u></p>

	<p>transmitted via the head end 130 to the transmission paths 200 and is transferred to the applicable personal communicator 1. First and second specified times, which will be described later in detail, are also transmitted.” <i>Id.</i> at [0032] (emphasis added); <i>also id.</i> at [0045].</p>
Claim 9	<p>Obvious Over Okamoto Japanese Parent (Ex. 1005) in view of Tsumura (Ex. 1003)</p>
<p>9. The communication system according to claim 8, said communication terminal device further comprising: second clock means for keeping a second predetermined time period shorter than said predetermined time period counted by said clock means, and</p>	<p>Okamoto Japanese Parent in view of Tsumura as applied to claim 8. Okamoto Japanese Parent discloses a CPU (i.e., second clock means) that is programmed to calculate the elapsed time by retrieving the current time and determine whether a specified time has passed. The Okamoto Japanese Parent also discloses that the specified time after which a warning is issued can be set relative to the specified time after which the program is erased (i.e., 5 minutes before).</p> <p><i>See</i> Ex. 1005, <i>Okamoto Japanese Parent</i> at Fig. 7 (steps S1210 and S1220); <i>see also id.</i> at Fig. 1 (item 5).</p> <p>“Next, game information automatic erasure means will be explained referring to Figure 7. When the game information reception related processing shown in figure 6 is executed, the reception completion time is retrieved at step S1200. <u>Then, the current time is also retrieved and the time which has elapsed after the completion of the data receipt is calculated at step S1210. Next, it is determined at step S1220, whether or not the first specified time has elapsed.</u> If a specified time has not elapsed, the flow goes back to the step S1210. Thus, when the first specified time has elapsed, warning is issued at step S1230. Further elapsing time is calculated at step S1240, and waits for the second specified time elapse at step S1250, and if the second specified time has elapsed, the game information stored in the memory 8 is erased at step S1260, and the current process ends.” <i>Id.</i> at [0034] (emphasis added); <i>see also id.</i> at [0040].</p> <p>“The warning given at step S1230 may take various forms of warnings, such as a message reading "Time Out in Five Minutes!" on the monitor 16, or a specified alarm sound. <u>Moreover, the first specified time at step S1220 can be set to for instance about 5 minutes before the second specified time.</u>” <i>Id.</i> at [0035] (emphasis added).</p>
<p>alarm means for issuing an alarm when said</p>	<p>Okamoto Japanese Parent discloses that the CPU (i.e., alarm means) issues a warning to the player, such as a message on the monitor that reads “Time Out in Five Minutes!” or a specified alarm sound.</p>

<p>second clock means counts said second predetermined time period, and thereby informing that interference by said interference means with execution of said executing means will soon be performed.</p>	<p><i>See id.</i> at Fig. 7 (step S1230).</p> <p>“[G]ame information automatic erasure means will be explained referring to Figure 7. When the game information reception related processing shown in figure 6 is executed, the reception completion time is retrieved at step S1200. Then, the current time is also retrieved and the time which has elapsed after the completion of the data receipt is calculated at step S1210. Next, it is determined at step S1220, whether or not the first specified time has elapsed. If a specified time has not elapsed, the flow goes back to the step S1210. <u>Thus, when the first specified time has elapsed, warning is issued at step S1230.</u> Further elapsing time is calculated at step S1240, and waits for the second specified time elapse at step S1250, and if the second specified time has elapsed, the game information stored in the memory 8 is erased at step S1260, and the current process ends.” <i>Id.</i> at [0034] (emphasis added).</p> <p><u>“The warning given at step S1230 may take various forms of warnings, such as a message reading "Time Out in Five Minutes!" on the monitor 16, or a specified alarm sound.</u> Moreover, the first specified time at step S1220 can be set to for instance about 5 minutes before the second specified time.</p> <p>The warning may be provided a plurality of times, such as five minutes before, two minutes and one minute before. If there is this warning, when the game is interrupted and the like, one can print the current status from the printer 40 (for instance, when a plural number of characters are outputted, who dealt with which character or at that time, the data as to the maximum scoring person and the like), hence one can resume the same game, making it very convenient.” <i>Id.</i> at [0035] (emphasis added).</p>
<p>Claim 10</p>	<p>Obvious Over Okamoto Japanese Parent (Ex. 1005) in view of Tsumura (Ex. 1003)</p>
<p>10. The communication terminal device according to claim 9, further comprising: [a] third clock means for keeping a third</p>	<p>Okamoto Japanese Parent in view of Tsumura as applied to claim 9. Tsumura discloses that the CPU (i.e., third clock means) calculates a third unit time during which the game is paused (i.e., after the interference means interferes with execution):</p> <p>“In the case of games like role playing games that can take a long time to play, on the other hand, it would be desirable to incorporate an additional charge facility that would function automatically at fixed intervals during the course of a game. The CPU's 71 internal clock, for example, could be used to calculate the unit time and to</p>

<p>predetermined time period after said interference means interferes with execution of said executing means,</p>	<p>call for the insertion of an additional fee before a predetermined length of time has elapsed, and to cause the game to be discontinued as soon as that length of time has elapsed if the required additional fee has not been paid. <u>An alternative arrangement would be to cause the game program to pause for a predetermined length of time after the game has been discontinued in order to allow time for the player to put more money in the machine. The pause could be released and the game continued if the requisite additional charge is paid within the time allowed.</u>” Ex. 1003, <i>Tsumura</i> at 9:56-10:4 (emphasis added).</p>
<p>[b] interference stop instruction means for instructing to stop the interference performed by said interference means, and</p>	<p>Tsumura discloses a coin input unit or fee input unit for obtaining money from the player (i.e., an instruction to pay the additional fee and continue playing the game).</p> <p>“First, with the game machine showing the initial screen, <u>the player puts a coin into the coin input unit 76 to pay for the use of the machine.</u> Data is then transferred by way of a transmission path from the receiving device 75 and a game menu is downloaded and presented in the display 74 in the form of a list. ... Since the insertion of a suitable coin or coins into the machine will enable key input, it will now be possible for, [sic] the player to use the input keys 73 to select the game he or she wishes to play and, in the event that an additional charge has to be paid, this information will also be presented in the display. If no extra charge needs to be paid, the game program requested will be received immediately and written into the RAM 72. Up to now, we have assumed that the game charge is paid by inserting a coin into a coin input unit 76 and by inserting additional coins if necessary. <u>If the coin input unit 76 was replaced by a fee input unit that accepted paper money instead, for example, it would be possible for the player to be allocated an amount of playing time corresponding to the amount of money inserted and for the remaining value to be counted down as the player proceeded with the game.</u> The adoption of this method would mean that, once the game data had been received, the player could play the game in accordance with the contents of the data held in the RAM 72. ...</p> <p>In the case of games like role playing games that can take a long time to play, on the other hand, it would be desirable to incorporate an additional charge facility that would function automatically at fixed intervals during the course of a game. The CPU's 71 internal clock, for example, could be used to calculate the unit time and to</p>

	<p>call for the insertion of an additional fee before a predetermined length of time has elapsed, and to cause the game to be discontinued as soon as that length of time has elapsed if the required additional fee has not been paid. <u>An alternative arrangement would be to cause the game program to pause for a predetermined length of time after the game has been discontinued in order to allow time for the player to put more money in the machine.</u> The pause could be released and the game continued if the requisite additional charge is paid within the time allowed.” <i>Id.</i> at 9:14-10:4 (emphasis added); <i>see also id.</i> at Fig. 7 (item 76).</p>
<p>[c] means for stopping the interference performed by said interference means and thereby allowing resumption of execution of the program or data processing performed by said executing means when said interference stop instruction means receives the instruction before said third clock means counts said third predetermined time period.</p>	<p>Tsumura discloses that the CPU (i.e., means for stopping the interference) is programmed to determine whether or not the additional fee has been paid and to allow the player to resume a paused game if the player has inserted the additional fee before the time allowed (i.e., third predetermined time period) has elapsed.</p> <p>“In the case of games like role playing games that can take a long time to play, on the other hand, it would be desirable to incorporate an additional charge facility that would function automatically at fixed intervals during the course of a game. The CPU's 71 internal clock, for example, could be used to calculate the unit time and to call for the insertion of an additional fee before a predetermined length of time has elapsed, and to cause the game to be discontinued as soon as that length of time has elapsed if the required additional fee has not been paid. An alternative arrangement would be to cause the game program to pause for a predetermined length of time after the game has been discontinued in order to allow time for the player to put more money in the machine. <u>The pause could be released and the game continued if the requisite additional charge is paid within the time allowed.</u>” <i>Id.</i> at 9:56-10:4 (emphasis added).</p>
Claim 11	Obvious Over Okamoto Japanese Parent (Ex. 1005) in view of Tsumura (Ex. 1003)
<p>11. The communication system according to claim 8, wherein said</p>	<p>Okamoto Japanese Parent in view of Tsumura as applied to claim 8. Okamoto Japanese Parent discloses a CPU programmed to delete the program and/or data stored in the memory when the specified time has elapsed.</p> <p><i>See Ex. 1005, Okamoto Japanese Parent</i> at Fig. 7 (steps S1260); <i>see also</i></p>

interference means comprises means for deleting at least one of the program, the data, and a combination of the program and data stored in said storage means.	<i>id.</i> at Fig. 1 (item 5). “Next, game information automatic erasure means will be explained referring to Figure 7. When the game information reception related processing shown in figure 6 is executed, the reception completion time is retrieved at step S1200. Then, the current time is also retrieved and the time which has elapsed after the completion of the data receipt is calculated at step S1210. Next, it is determined at step S1220, whether or not the first specified time has elapsed. If a specified time has not elapsed, the flow goes back to the step S1210. Thus, when the first specified time has elapsed, warning is issued at step S1230. Further elapsing time is calculated at step S1240, and waits for the second specified time elapse at step S1250, and <u>if the second specified time has elapsed, the game information stored in the memory 8 is erased at step S1260</u> , and the current process ends.” <i>Id.</i> at [0034] (emphasis added); <i>see also id.</i> at [0040].
Claim 13	Obvious Over Okamoto Japanese Parent (Ex. 1005) in view of Tsumura (Ex. 1003)
13. The communication system according to claim 8, wherein said interference means comprises means for invalidating the operation of said input device.	Okamoto Japanese Parent in view of Tsumura as applied to claim 8. Okamoto Japanese Parent discloses a CPU programmed to delete the program and/or data stored in the memory when the specified time has elapsed. <i>Id.</i> at Fig. 7 (step 1260), Fig. 1 (item 5), [0034]. Okamoto Japanese Parent does not disclose invalidating the operation of an input device. Tsumura, however, discloses that a user can pay for an “amount of time” (Ex. 1003, <i>Tsumura</i> at 9:34-39) to play a downloaded game, after which the game will pause and the user will be prompted to insert an additional fee (<i>id.</i> at 9:65-10:4). When the game pauses, the input device is disabled (i.e., invalidated) unless and until the user has paid an appropriate amount of money to continue playing the game. <i>Id.</i> at 9:24-29 (“Since the insertion of a suitable coin or coins into the machine will enable key input, it will now be possible for, the player to use input key 73 to select the game he or she wishes to play”); <i>see also id.</i> at 9:65-10:4. As such, Tsumura discloses a CPU for invalidating the operation of an input device after an amount of time has elapsed and the game is paused.
Claim 14	Obvious Over Okamoto Japanese Parent (Ex. 1005) in view of Tsumura (Ex. 1003)
14. The communication	Okamoto Japanese Parent in view of Tsumura as applied to claim 8. Okamoto Japanese Parent discloses a personal communicator that

system according to claim 8, further comprising [a] sound generating means for generating a predetermined sound in accordance with the progress of execution of the program or data processing,	includes a speaker for generating sound in accordance with game play. <i>See</i> Ex. 1005, <i>Okamoto Japanese Parent</i> at Fig. 1 (item 13). “As shown in figure 1, the personal communicator 1 comprises a terminal modem 3, a timer 4, a CPU 5, an input device 6, ROM 7, memory 8, a video image circuit 9, an audio source 10, an audio amplifier 11, a <u>speaker</u> 13, an image synthesis circuit 15, a monitor 16, a control unit connector 21, a microphone connector 23, a data input/output control unit 25 and a data an input/output connector 27.” <i>Id.</i> at [0021] (emphasis added); <i>see also id.</i> at [23], [0046], [0047]. “For instance, in the above described embodiment, as shown in figure 1, it was explained that the personal communicator 1 itself comprises a monitor 16 and a <u>speaker</u> 13 internally but this is not limited to this, and this can be designed to be connected to the <u>external</u> monitor and <u>speaker</u> . For instance, it can be designed to be connected to the TV receiver so that the images and audio can be outputted from the TV receiver.” <i>Id.</i> at [0051] (emphasis added).
[b] wherein said interference means comprises means for preventing said sound generating means from generating the sound.	Okamoto Japanese Parent discloses a CPU programmed to delete the program and/or data stored in the memory when the specified time has elapsed. <i>Id.</i> at Fig. 7 (step 1260), Fig. 1 (item 5), [0034]. Once a program is deleted it does not generate sound.

C. Claims 8-9, 11-12, and 14 Are Unpatentable under 35 USC § 103(a) as Obvious over the Okamoto Japanese Parent in view of Nishio

The Okamoto Japanese Parent was cited, but was not substantively considered during the Prior Reexams because, as discussed above, the Examiner incorrectly determined that Claims 8-14 were entitled to the claimed 1993 priority date of the ‘520 Patent and then refused to consider the Okamoto Japanese Parent as prior art. Ex. 1010, *Reexam 90/010666* at Dec. 3, 2009 Order Granting Request, 55-56. Claims 8-14 are only entitled to a priority date of July 2, 1998. *See* Section III.D. The Okamoto Japanese Parent was filed May 10, 1993, published December 2, 1994 and is therefore prior art under 35 U.S.C. § 102(b). *In re Chu*, 66 F.3d 292, 296-97 (Fed. Cir. 1995).

Nishio was filed July 31, 1995, published February 22, 1996, and is therefore prior art under 35 U.S.C. § 102(b). Nishio has not been cited or considered during the prosecution or any reexamination of the '520 Patent. Nishio discloses “a device for managing and maintaining a software usage amount, such as a computer program, and an image, particularly digitized software.” Ex. 1007, *Nishio* at p. 2(¶1).² Nishio specifically discloses monitoring use of software and “preventing the use of software, while a software user is informed of the fact that a software usage amount has reached a defined amount in which usable data is output in an incomplete form, if the software is used in excess of this usable amount.” *Id.* at p. 2(¶7). For example, Nishio discloses that after the user reaches the usage limit, a display prevention device overlays image patterns over a displayed video signal, while continuing to output the normal audio signal (i.e., blocking the view on the screen). *See, e.g., id.* at p. 9(¶1), p. 10(¶9), Fig. 7. Nishio also discloses that after the user reaches the usage limit, the audio signal may be turned “off,” while the image signal continues normally. *See, e.g., id.* at p. 14(¶7), p. 15(¶¶13-14), Fig. 13. Nishio discloses that software can be “transferred via a communication network from a software vendor.” *Id.* at p. 4(¶9).

² For ease of review, Petitioners added paragraph numbers on the left margin of the Nishio reference, which are referred to herein. All page numbers for the Nishio reference in this Petition relate to the page number listed at the bottom of the page. Therefore, the numbers appearing in the body of the Nishio text should be ignored.

Therefore, upon reading the disclosure of Nishio, a skilled artisan would have recognized that modifying the Okamoto Japanese Parent to measure the lease period (i.e., predetermined time period) from the start of execution of the software could be desirable. Ex. 1011, *Kitchen Decl.* at ¶¶ 98-99. A skilled artisan would have appreciated that this improvement to the Okamoto Japanese Parent would yield a system that would make it possible to charge based on actual use of the software, as described by Nishio. *Id.* at ¶ 100; Ex. 1007, *Nishio* at p. 3(¶¶2-3). According to Nishio, there are many methods for measuring the actual software usage time, including counting the number of frames that have been expanded and viewed or using a counter to measure the elapsed software usage time. *Id.* at p. 3(¶¶2-3), p. 9(¶¶8-10), p. 12(¶5). Modifying the Okamoto Japanese Parent personal communicator in this manner could be achieved simply by modifying the start time for measuring the “specified time” prior to interruption, where, instead of retrieving the “reception completion time” in order to calculate the elapsed time, as taught by the Okamoto Japanese Parent (*see, e.g.*, Ex. 1005, *Okamoto Japanese Parent* at Fig. 7), the elapsed time is measured from the start of execution, such as by incorporating a software usage amount detecting unit, as disclosed by Nishio. Ex. 1011, *Kitchen Decl.* at ¶¶ 101-102.

A skilled artisan would have also recognized that modifying the Okamoto Japanese Parent to interfere with execution of the program, without terminating execution entirely, could be desirable. *Id.* at ¶ 104. For example, Nishio specifically discloses that the advantage of interfering with execution without terminating the

program is that software users can recognize that the interruption is caused by expiration of the amount of usage time purchased, but is not caused due to a failure in the user's device. Ex. 1007, *Nishio* at p. 2(¶¶6-7), p. 10(¶9), p. 11(¶15), p. 15 (¶13). A skilled artisan would have appreciated that this improvement to the Okamoto Japanese Parent would yield a system that would increase the desire for continued use by the user of the software. *Id.* at p. 10(¶9), p. 11(¶16), p. 15 (¶14). Nishio also discloses that the interfering aspects are designed to prompt the software user to pay the charge for additional use. *Id.* Thus, it would have been natural and an application of nothing more than ordinary skill and common sense for a skilled artisan to combine the system of the Okamoto Japanese Parent with the interference aspects of Nishio and where the time period prior to interference is based on actual software usage as taught by Nishio. Ex. 1011, *Kitchen Decl.* at ¶ 107. Even further, such modifications would have yielded predictable results without undue experimentation. *Id.* The Okamoto Japanese Parent and Nishio are in the same field of endeavor as the '520 Patent – interactive communication systems for transmitting software from a host facility to communication terminal devices – and are each, therefore, analogous to the '520 Patent. *See, e.g.*, Ex. 1001, '520 Patent at 1:9-11; Ex. 1005, *Okamoto Japanese Parent* at [0001], Abstract; Ex. 1007, *Nishio* at p. 2(¶2), p. 4(¶4), p. 4(¶9). Like the '520 Patent, the Okamoto Japanese Parent and Nishio each address the problem of monitoring rented software and interfering with execution upon expiration of a time limit. *See, e.g.*, Ex.

1001, ‘520 *Patent* at 1:25-29, 2:51-65, 3:4-6; Ex. 1007, *Nishio* at p. 2(¶1), p. 2(¶7); Ex. 1005, *Okamoto Japanese Parent* at [0034].

Claim 8	Obvious Over Okamoto Japanese Parent (Ex. 1005) in view of Nishio (Ex. 1007)
8. A communication system for transmitting at least one of the program, the data, and a combination of the program and data from a host facility to a communication terminal device, said communication terminal device comprising:	Okamoto Japanese Parent as applied to the preamble of claim 8 in Section V.B above.
[a] an input device for inputting instructions to execute the program or to process the data,	Okamoto Japanese Parent as applied to element [a] of claim 8 in Section V.B above.
[b] receiving means for receiving one of the program, the data, and a combination of the program and data as sent out from said host facility,	Okamoto Japanese Parent as applied to element [b] of claim 8 in Section V.B above.
[c] storage means for storing the program, the data, or a combination of the program and data received by said receiving means,	Okamoto Japanese Parent as applied to element [c] of claim 8 in Section V.B above.
[d] executing means for executing the program stored in said storage means or executing data processing by using the data stored in said storage means, in accordance with instructions from said input device,	Okamoto Japanese Parent as applied to element [d] of claim 8 in Section V.B above.
[e] clock means for keeping a predetermined time period after said executing means starts execution of the program or data processing, and	<p>Okamoto Japanese Parent discloses a CPU programmed to retrieve the stored reception completion time, calculate elapsed time, and determine when a specified time after reception completion has elapsed.</p> <p><i>See</i> Ex. 1005, <i>Okamoto Japanese Parent</i> at Fig. 7 (steps S1200, S1240, S1250); <i>also</i> Fig. 1 (item 5).</p> <p>“Turning back to figure 6, the game information is received at the personal communicator 1 at step S1120 and stored in the memory 8 at step S1130. <u>When the storage of the game information into the memory 8 is completed, the reception completion is indicated on the monitor 16 at step S1140.</u>” <i>Id.</i> at [0033] (emphasis added).</p> <p>“Next, game information automatic erasure means will be explained referring to Figure 7. <u>When the game information reception related</u></p>

processing shown in figure 6 is executed, the reception completion time is retrieved at step S1200. Then, the current time is also retrieved and the time which has elapsed after the completion of the data receipt is calculated at step S1210. Next, it is determined at step S1220, whether or not the first specified time has elapsed. If a specified time has not elapsed, the flow goes back to the step S1210. Thus, when the first specified time has elapsed, warning is issued at step S1230. Further elapsing time is calculated at step S1240, and waits for the second specified time elapse at step S1250, and if the second specified time has elapsed, the game information stored in the memory 8 is erased at step S1260, and the current process ends.” *Id.* at [0034] (emphasis added).

“Furthermore, the game information temporarily stored in the memory 8 is erased in a specified time after transmission.” *Id.* at [0040].

Okamoto Japanese Parent, however, does not disclose keeping a predetermined time period after the start of execution. Nishio does. Namely, Nishio discloses a device for managing a “software usage amount” and capable of preventing the use of software when the usage amount has reached a “defined amount.” Ex. 1007, *Nishio* at p. 2(¶¶1, 7). Nishio discloses software usage amount detecting unit and determination unit programmed to measure a software usage time and subtract the usage time from the purchased or “reference” time:

“A method, according to which the software usage amount detecting unit acquires the software usage amount under whatever conditions, may be any method. Further, a format for recording the determined usage amount may also be any desired format and an arrangement may be used for the subtraction of a count value in accordance with the software usage amount. For example, an arrangement for counting the number of operations or the stretching operations of an image data frame that is compressed based on MPEG standards, may be provided, and can output a count value in accordance with the number of operation can be subtracted. . . . An arrangement for measuring a software usage time and subtracting a count in accordance with this time by reference to the time can also be assumed.” *Id.* at p. 3(¶2) (emphasis added); *see also id.* at Fig. 1 (item 101 and 102), p. 3(¶3), p. 2(¶7).

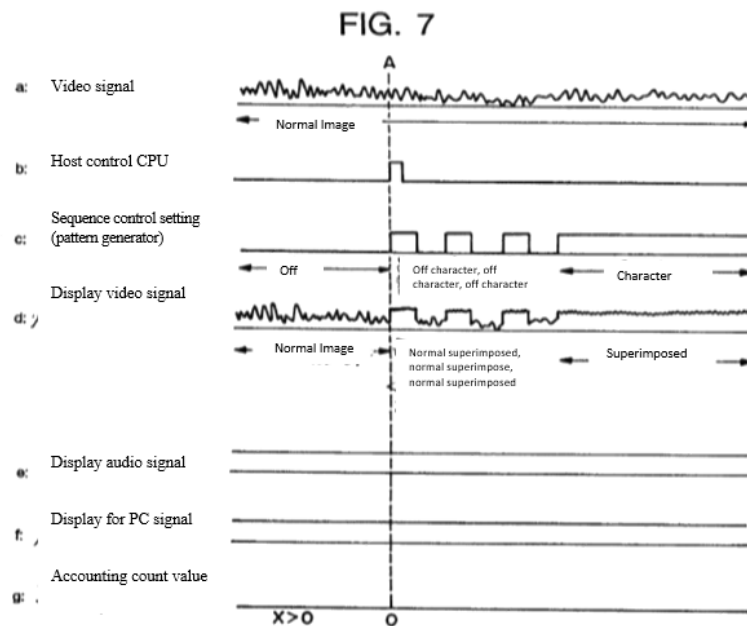
“**Fig. 1** illustrates a structure which is common to the following embodiments. A software reproduction device **100** includes a

	<p>software usage amount detection unit 101, a determination unit 102 and a display or output-prevention unit 103. <u>When the software is entered into the software's reproduction device 100 and when a software user uses this software, then the software usage amounts detection unit 101 determines a usage amount of this software. The determination unit 102 compares the software usage amount by means of the detection unit or detector unit 101 software usage amount with a defined amount of available usage. The output prevention unit 103 prevents display to the outside when the determination unit 101 determines that the software usage amount reaches certain amount of use.</u>" <i>Id.</i> at p. 4(¶2) (emphasis added).</p> <p><i>See also id.</i> at pp. 4(¶10)-5.</p> <p><i>See generally id.</i> at p. 6(¶3), p. 7(¶¶2-9), p. 8(¶¶5-15), p. 9(¶¶8-9), p. 10(¶¶1-2, 12), Figs. 2, 5-7, 9, 13.</p>
[f] interference means for interfering with execution of said executing means when said clock means counts said predetermined time period; and	Okamoto Japanese Parent as applied to element [f] of claim 8 in Section V.B above.
said host facility comprising: [g] storage means for storing at least one of the program, the data, and a combination of the program and data together with the duration data indicative of the predetermined time period to be counted by said clock means, and	Okamoto Japanese Parent as applied to element [g] of claim 8 in Section V.B above.
[h] sending out means for sending out at least one of the program, the data, and a combination of the program and data together with the duration data stored in said storage means to said communication terminal device.	Okamoto Japanese Parent as applied to element [h] of claim 8 in Section V.B above.
Claim 9	Obvious Over Okamoto Japanese Parent (Ex. 1005) in view of Nishio (Ex. 1007)
9. The communication system according to claim 8, said communication terminal device further comprising: [a] second clock means for keeping a second predetermined time period shorter than said predetermined time period counted by said clock means, and	Okamoto Japanese Parent in view of Nishio as applied to claim 8. Okamoto Japanese Parent as applied to element [a] of claim 9 in Section V.B above.
[b] alarm means for issuing an alarm when said second clock means counts said second predetermined time	Okamoto Japanese Parent as applied to element [b] of claim

period, and thereby informing that interference by said interference means with execution of said executing means will soon be performed.	9 in Section V.B above.
Claim 11	Obvious Over Okamoto Japanese Parent (Ex. 1005) in view of Nishio (Ex. 1007)
11. The communication system according to claim 8, wherein said interference means comprises means for deleting at least one of the program, the data, and a combination of the program and data stored in said storage means.	Okamoto Japanese Parent in view of Nishio as applied to claim 8. Okamoto Japanese Parent as applied to claim 11 in Section V.B above.
Claim 12	Obvious Over Okaomoto Japanese Parent (Ex. 1005) in view of Nishio (Ex. 1007)
12. The communication system according to claim 8, [a] wherein said communication terminal device comprises display means having a screen on which the progress of execution of program or data processing is displayed,	<p>Okamoto Japanese Parent in view of Nishio as applied to claim 8. The Okamoto Japanese Parent discloses a personal communicator that includes a monitor for displaying images.</p> <p><i>See</i> Ex. 1005, <i>Okamoto Japanese Parent</i> at Fig. 1 (item 16).</p> <p>“As shown in figure 1, the personal communicator 1 comprises a terminal modem 3, a timer 4, a CPU 5, an input device 6, ROM 7, memory 8, a video image circuit 9, an audio source 10, an audio amplifier 11, a speaker 13, an image synthesis circuit 15, a <u>monitor 16</u>, a control unit connector 21, a microphone connector 23, a data input/output control unit 25 and a data an input/output connector 27.” <i>Id.</i> at [0021] (emphasis added).</p> <p>“For instance, in the above described embodiment, as shown in figure 1, it was explained that the personal communicator 1 itself comprises a <u>monitor 16</u> and a speaker 13 internally but this is not limited to this, and this can be designed to be connected to the <u>external monitor</u> and speaker. <u>For instance, it can be designed to be connected to the TV receiver so that the images and audio can be outputted from the TV receiver.</u>” <i>Id.</i> at [0051] (emphasis added); <i>see also id.</i> at [0008], [0035], [0042], [0046], [0047].</p>
[b] said interference means comprises means for blocking the view of what is	<p>Okamoto Japanese Parent discloses a CPU programmed to delete the program and/or data stored in the memory when the specified time has elapsed. <i>Id.</i> at Fig. 7 (step 1260), Fig. 1 (item 5), [0034]. Okamoto Japanese Parent does not disclose blocking the view of what is displayed on the screen.</p> <p>Nishio, however, discloses a CPU programmed to superimpose image patterns over a displayed video signal (i.e., blocking the view of</p>

<p>displayed on said screen.</p>	<p>what is displayed on the screen), without terminating execution of the software, when a user exceeds a quantity of purchased usage time (i.e., an “accounting count value”):</p> <p>“Returning to Fig. 2, there is explained a configuration of the <u>display prevention device for carrying out an uncompleted display or output by overlaying image patterns over the video signal that is displayed on the television monitor</u>, in accordance with the display prevention signal that is output from the host control CPU 14. ...</p> <p>In the case that it receives the display prevention signal, <u>the pattern generator 16 generates picture patterns for displaying the character data in order to attract attention of the software user to point out, for example, that the "accounting count = 0".</u> The pattern generator 16 outputs the pattern image data generated only when the output signal of the sequence control device 15 is switched on. The picture patterns generated by this pattern generator 16 are fed to the input side of the adding circuit 19.</p> <p><u>The adding circuit 19 superimposes the picture pattern received from the pattern generator 16 on to an analog video signal output by the digital/analog converter 13 for the video signal and outputs the superimposed signals to the TV monitor unit.</u> When the picture pattern signal, transferred or displayed by the pattern generator 16 is switched off, then the output of the digital/analog converter 13a is delivered as it is. <u>In contrast, when the image signal pattern is switched on, then a corresponding video signal is displayed in which the image pattern is superimposed on the analog video signal which is output from the digital/analog converter 13a.</u> It should be noted that this adding circuit 19 is provided only on the output side of the video-oriented digital/analog converter 13. Accordingly, even in the case that the host control CPU 14 outputs the display prevention signal, the analog audio signal, the computer program and the data for the program (hereinafter referred to as "PC-signal") are displayed normally as previously.” Ex. 1007, <i>Nishio</i> at p. 9(¶¶1-4) (emphasis added).</p> <p>“Accordingly, after the time "A" in the case that the accounting counter value is 0, <u>there is generated an output or display prevention signal, such that the character pattern is only superimposed with respect to the image signal of the three output signals (image signal, voice signal and PC signal).</u> Therefore, the</p>
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software user, who is viewing the TV monitor (not shown) does not misunderstand that this is not the occurrence of a failure of error but is in a position to recognize that the accounting count has been reduced to 0. At this point, the audio signal and the PC signal are normally forwarded as they are. If the software is mainly based on the image (e.g., a film, animation, etc.), however, the profit and benefit of the software entitlement is not injured. Much rather, as will be appreciated, an effect is called up such that the desire for continued use by the user of the software is increased. As a result the software user will be ready to pay the fee for the use to the software vendor as compensation for adding to the accounting count X or for removing the SD circuit 9 of the software reproduction device 2.” *Id.* at p. 10(¶9).



Id. at Fig. 7; *see also id.* at p. 10(¶¶2-8).

Nishio also discloses a CPU programmed to completely stop the “image signal and the PC signal” from being displayed while continuing to output the “normal audio signal” of the software. *Id.* at p. 10 (¶12).

“Accordingly, in the event that the accounting count becomes 0 after the time of "B", such a display prevention causes the issue to the outside of the software reproduction device 2 to be prevented based solely on the image signal and the PC signal among the three output signals (image signal and voice signal PC signal). At this point, however, the audio signal remains for normal forwarding.

	<p>Therefore, the software user is able to recognize that the accounting count X has become 0, without assuming that there is a malfunction in the software reproduction device 2.” <i>Id.</i> at p. 11(¶15)(emphasis added); <i>see also id.</i> at Fig. 9; <i>see generally id.</i> at p. 2(¶7), p. 3(¶4), p. 7(¶¶7-9), p. 8(¶10), p. 10(¶12) to p. 11(¶16), p. 19(¶3-9), Fig. 1, Fig. 5 (Step S118), Fig. 6, Fig. 8.</p> <p>Nishio further discloses inverting brightness and darkness of the image signal. <i>Id.</i> at p. 15(¶15) to p. 17(¶1), Figs. 14, 15. Nishio further discloses outputting an image signal over which a randomly generated pattern or a “dummy or blind signal” is superimposed. <i>Id.</i> at p. 17(¶2) to p. 19(¶2), Figs. 16-19.</p>
Claim 14	Obvious Over Okamoto Japanese Parent (Ex. 1005) in view of Nishio (Ex. 1007)
<p>14. The communication system according to claim 8, further comprising [a] sound generating means for generating a predetermined sound in accordance with the progress of execution of the program or data processing,</p>	<p>Okamoto Japanese Parent in view of Nishio as applied to claim 8. Okamoto Japanese Parent discloses a personal communicator that includes a speaker for generating sound in accordance with game play.</p> <p><i>See</i> Ex. 1005, <i>Okamoto Japanese Parent</i> at Fig. 1 (item 13).</p> <p>“As shown in figure 1, the personal communicator 1 comprises a terminal modem 3, a timer 4, a CPU 5, an input device 6, ROM 7, memory 8, a video image circuit 9, an audio source 10, an audio amplifier 11, <u>a speaker 13</u>, an image synthesis circuit 15, a monitor 16, a control unit connector 21, a microphone connector 23, a data input/output control unit 25 and a data an input/output connector 27.” <i>Id.</i> at [0021] (emphasis added).</p> <p>“For instance, in the above described embodiment, as shown in figure 1, it was explained that the personal communicator 1 itself comprises a monitor 16 and <u>a speaker 13 internally</u> but this is not limited to this, and this can be designed to be connected to the <u>external</u> monitor and <u>speaker</u>. For instance, it can be designed to be connected to the TV receiver so that the images and audio can be outputted from the TV receiver.” <i>Id.</i> at [0051] (emphasis added); <i>see also id.</i> at [23], [0046], [0047].</p> <p>Nishio discloses software that includes both audio and video, where the audio is output through a loud speaker. Ex. 1007, <i>Nishio</i> at p. 5(¶10), p. 14(¶7), p. 15(¶¶13-14), Fig. 13, Fig. 12.</p>
[b] wherein said interference	Okamoto Japanese Parent discloses a CPU programmed to delete the program and/or data stored in the memory when the specified time

<p>means comprises means for preventing said sound generating means from generating the sound.</p>	<p>has elapsed. Ex. 1005, <i>Okamoto Japanese Parent</i> at Fig. 7 (step 1260), Fig. 1 (item 5), [0034].</p> <p>Nishio specifically discloses a CPU programmed to hinder the outputted audio when a user exceeds a quantity of purchased usage time (i.e., an “accounting count value”). Namely, Nishio discloses turning “off” the audio signal, while allowing the image signal to continue normally when the accounting count value is “0.”</p> <p>“This embodiment further includes a structure such that, as a display prevention, <u>the audio signal and the PC signal are completely stopped whereas the normal image signal is output when the accounting count value X becomes 0.</u>” Ex. 1007, <i>Nishio</i> at p. 14(¶7) (emphasis added).</p> <p>“If the value stored in the accounting data memory 8 accounting count value X is 0 as a result of the decrement, then the signal state as shown in Fig. 13 extends in each unit. Fig. 13 shows that the accounting X count becomes 0 at a time point “C” (see Fig. 13(g)). [...]</p> <p>The AND circuit 44 for audio data, which permits or prevents the transmission of the speech signal in accordance with the output signal of the inverter 41, outputs a normal audio signal prior to the time “C” when the accounting counter value is X(g) is greater than 0. <u>The AND circuit 44, however, prevents the release of the audio signal after time “C” if the accounting count X(g) is 0 (see Fig. 13(e)).</u> [...] It should be noted that the normal picture signal is also delivered before and after the time “C” (see FIG 13(d)).</p> <p>Accordingly, <u>after the time of “C”, in the event that the accounting counter value is 0, such a display prevention is called up, that the discharge to the outside of the software prevention device 2 is prevented or locked only with respect to the audio signal and computer signal among the three output signals (image signal, speech signal and PC signal).</u> At this time, however, the normal output of the image signal is maintained. Therefore, the knowledgeable user of software is able to recognize that the accounting count value X is 0 without a misinterpretation of an error in the device 2.</p> <p>As described above and in accordance with this embodiment, the forwarding of the PC signal is locked to the outside of the software reproducing device 2, and therefore it is possible to prevent illegal</p>
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	<p>use of the computer program. It should be noted that the normal output of image signal is continued, however, the profit of the software authorized person is not violated if the software is based on language or sound (e.g., a video of a classical music concert, a karaoke video, a language study video, etc.). Much rather, as will be appreciated, an effect is called up such that the desire for continued use by the user of the software is increased. As a result the software user will be ready to pay the fee for the use to the software vendor as compensation for adding to the accounting count X or for removing the SD circuit 9 of the software reproduction device 2.” <i>Id.</i> at p. 15(¶¶5-14) (emphasis added). <i>See id.</i> at Fig. 13; <i>see generally id.</i> at p. 14(¶6) to p. 15(¶14), Fig. 12.</p>
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D. Claims 9 and 10 Are Unpatentable under 35 USC § 103(a) as Obvious over Chernow in view of Tsumura in further view of Kato

The Examiner in the Prior Reexams determined that Chernow in view of Kato teaches the limitations of claim 9 and that Chernow in view of Kato and Tsumura teaches the limitations of claim 10. Ex. 1010, *Reexam 90/010666* at July 6, 2011 Final OA, at 28-29, 30-31, 59. Patent Owner did not refute these determinations. *Id.* at Jan. 11, 2013 PTAB Decision, at 45, 47; *Id.* at Nov. 2, 2011 Appeal Br., at 15, 18. The PTAB has already determined that canceled claims 2 and 3, which are identical to claims 9 and 10 (respectively) except that claims 2 and 3 include an additional “clock means” limitation, are obvious over the combination of Chernow, Tsumura, and Kato. *Id.* at Jan. 11, 2013 PTAB Decision, 48; *also compare id.* at Nov. 2, 2011 Appeal Br., 23-24 *with id.* at 25-27. However, the combination of Chernow, Tsumura, and Kato as applied to now-canceled claims 2 and 3, was not applied to claims 9 and 10 in the Prior Reexams.

Chernow, Tsumura, and Kato are in the same field of endeavor as the ‘520 Patent – interactive communication systems for transmitting game software from a host

facility to communication terminal devices – and are each, therefore, analogous to the ‘520 Patent. *See, e.g.*, Ex. 1001, ‘520 Patent at 1:9-11; Ex. 1002, *Chernow* at 1:5-8; Ex. 1003, *Tsumura* at 1:16-23; Ex. 1009, *Kato* at 5. The combination of Chernow and Tsumura teach every limitation of claim 8. *See* Section V.A. The Examiner previously found: “Tsumura demonstrated that it was known at the time of invention to count a time period after interfering with execution of software (Tsumura: column 9, line 56 to column 10, line 4, ‘predetermined length of time has elapsed’) and to block/interfere with software and then cease blocking/interfering (allow the resumption of the software execution, and which demonstrates an interference stop instruction) upon payment of an additional charge within the time period (Tsumura: column 9, line 56 to column 10, line 4, ‘to call for the insertion of an additional fee before a predetermined length of time has elapsed ...’).” Ex. 1010, *Reexam 90/010666* at Apr. 5, 2012 Examiner’s Answer, 28 and 30-31. The Examiner also found: “Kato demonstrated that it was known at the time of invention to count a short time period in order to provide an alarm before an action.” *Id.* at 26 and 29-30; Ex. 1009, *Kato* at 28-29. It would have been obvious to a skilled artisan at the alleged time of invention to implement the software distribution system of Chernow, such that the term of use prior to interference of the software is measured from the start of execution as taught by Tsumura (*see* Section V.A above), and where the software is paused for a period of time in order to allow the player to pay an additional charge to continue using the software as taught by Tsumura. It would also have been obvious to a skilled artisan to implement such a

system where the user is provided with a notification of expiration of the initial term of use, for example, five minutes before expiration occurs as taught by Kato.

Upon reading the disclosure of Tsumura, a skilled artisan would have recognized that modifying Chernow to interfere with execution of software for a specified period of time and then allow the resumption of the software execution after payment of an additional fee as taught by Tsumura could be desirable. Ex. 1011, *Kitchen Decl.* at ¶ 116. For example, Tsumura discloses that “[i]n the case of games like role playing games that can take a long time to play, ... it would be desirable to incorporate an additional charge facility that would function automatically at fixed intervals during the course of a game.” Ex. 1003, *Tsumura* at 9:56-60. A skilled artisan would have appreciated that this improvement to Chernow would yield a system that would make it “possible for the player to be allocated an amount of playing time corresponding to the amount of money inserted and for the remaining value to be counted down as the player proceeded with the game.” *Id.* at 9:36-39. Thus, it would have been natural and an application of nothing more than ordinary skill and common sense for a skilled artisan to combine the Chernow’s system with use of an additional charge facility as disclosed in Tsumura. Ex. 1011, *Kitchen Decl.* at ¶ 118.

Upon reading the disclosure of Kato, a skilled artisan would have recognized that modifying Chernow to monitor the term of use and issue a notification prior to expiration of the term could be desirable. Ex. 1011, *Kitchen Decl.* at ¶ 119. For example, Kato specifically discloses the importance of updating and displaying a “Remaining

Time” box for informing the user of how much time remains in their rental period. Ex. 1009, *Kato* at 27. Kato also recognized that it would be useful to notify the user of expiration of the rental period 5 minutes before expiration occurs. *Id.* at 29. A skilled artisan would have appreciated that this improvement to Chernow would yield a system that would notify the user prior to expiration of the term of use. Ex. 1011, *Kitchen Decl.* at ¶ 119. As disclosed in Kato, such a modification could be achieved simply by monitoring the “term of use” and issuing a notification on the display 5 minutes prior to expiration of the term of use time period. *Id.* Thus, it would have been natural and an application of nothing more than ordinary skill and common sense for a skilled artisan to combine the systems of Chernow and Tsumura to provide advanced notification of the expiration of the rental period as disclosed in Kato. *Id.* Such a modification would have yielded predictable results without undue experimentation. *Id.*

Claim 9	Obvious Over Chernow (Ex. 1002) in view of Tsumura (Ex. 1003) in further view of Kato (Ex. 1009)
9. The communication system according to claim 8, said communication terminal device further comprising: second clock means for keeping a second predetermined time period	Chernow in view of Tsumura as applied to claim 8 in Section V.A. Kato discloses a main control block (i.e., second clock means) that is programmed to start a “contract timer,” to monitor the contract time, and to notify the user of the expiration, for example, five minutes before expiration. “Subsequently, <u>the main control part 4 starts a timer embedded therein (hereafter referred to as a "contract timer") (step S128 shown in Figure 3(b))</u> and displays a screen, for example as shown in Figure 5(e), on the display 12 as the software usage information (step S129 shown in Figure 3(b)). It should be noted that this usage information is always displayed on the display 12 until the contract time is reached while the information in the “Remaining Time” box is being updated. Additionally, said usage information can be displayed on the display of the computer CP being used in the

<p>shorter than said predetermined time period counted by said clock means, and</p>	<p>subsequent operation mode “Computer Operation.” In this case, by pressing a given predefined key (e.g., the “Home” key), it is shown as a window in a part of said display screen.” Ex. 1009, <i>Kato</i> at 27 (emphasis added).</p> <p><u>“Concurrently therewith, the main control part 4 consistently monitors the contract time by referencing the above-mentioned contract timer (step S132 shown in Figure 3(b)) while monitoring computer operations for ending the execution of the contract software concerned (an application program), such as the pressing of the “End” key by the user for example, through the above-mentioned computer interface 31 (step S133 shown in Figure 3(b)). [...] [I]f it is determined that the contract time has been reached during the above-mentioned monitoring of the contract time (step S132 shown in Figure 3(b)), this contract timer will also be stopped temporarily (step S137 shown in Figure 3(b)). It should be further understood that, as to the monitoring of the contract time, the processing may be configured into an aspect whereby the user is notified of the expiration before a certain period of time (e.g., five minutes).”</u> <i>Id.</i> at 28-29 (emphasis added); <i>see also id.</i> at Fig. 3(b).</p>
<p>alarm means for issuing an alarm when said second clock means counts said second predetermined time period, and thereby informing that interference by said interference means with execution of said executing means will soon be performed.</p>	<p>Kato discloses that the main control block (i.e., alarm means) notifies the user of the contract time expiration, for example, 5 minutes before expiration occurs.</p> <p><u>“Concurrently therewith, the main control part 4 consistently monitors the contract time by referencing the above-mentioned contract timer (step S132 shown in Figure 3(b)) while monitoring computer operations for ending the execution of the contract software concerned (an application program), such as the pressing of the “End” key by the user for example, through the above-mentioned computer interface 31 (step S133 shown in Figure 3(b)). [...] [I]f it is determined that the contract time has been reached during the above-mentioned monitoring of the contract time (step S132 shown in Figure 3(b)), this contract timer will also be stopped temporarily (step S137 shown in Figure 3(b)). It should be further understood that, as to the monitoring of the contract time, the processing may be configured into an aspect whereby the user is notified of the expiration before a certain period of time (e.g., five minutes).”</u> <i>Id.</i> at 28-29 (emphasis added); <i>see also id.</i> at 27, Fig. 3(b).</p>
<p>Claim 10</p>	<p>Obvious Over Chernow (Ex. 1002) in view of Tsumura (Ex. 1003) in further view of Kato (Ex. 1009)</p>

10. The communication terminal device according to claim 9, further comprising: [a] third clock means for keeping a third predetermined time period after said interference means interferes with execution of said executing means,	Chernow in view of Tsumura in further view of Kato as applied to claim 9 above. Tsumura as applied to element [a] of claim 10 in Section V.B above.
[b] interference stop instruction means for instructing to stop the interference performed by said interference means, and	Tsumura as applied to element [b] of claim 10 in Section V.B above.
[c] means for stopping the interference performed by said interference means and thereby allowing resumption of execution of the program or data processing performed by said executing means when said interference stop instruction means receives the instruction before said third clock means counts said third predetermined time period.	Tsumura as applied to element [c] of claim 10 in Section V.B above.

E. Claims 12 and 14 Are Unpatentable under 35 USC § 103(a) as Obvious over Chernow in view of Tsumura in further view of Nishio

Chernow, Tsumura, and Nishio are in the same field of endeavor as the ‘520 Patent – interactive communication systems for transmitting software from a host facility to communication terminal devices – and are each, therefore, analogous to the ‘520 Patent. *See, e.g.*, Ex. 1001, ‘520 Patent at 1:9-11; Ex. 1002, *Chernow* at 1:5-8; Ex. 1003, *Tsumura* at 1:16-23; Ex. 1007, *Nishio* at p. 2(¶2), p. 4(¶4), p. 4(¶7). Similar to the ‘520 Patent, Chernow, Tsumura, and Nishio each address the problem of monitoring rented software and interfering with execution of software upon expiration of a time limit. *See, e.g.*, Ex. 1001, ‘520 Patent at 1:25-29, 2:51-65, 3:4-6; Ex. 1007, *Nishio* at p. 2(¶1), p. 2(¶7); Ex. 1002, *Chernow* at 5:16-19; Ex. 1003, *Tsumura* at 9:52-10:4. The combination of Chernow and Tsumura teach every limitation of claim 8. *See* Section V.A.

As discussed in Section IV.C.1.e), the ‘520 Patent’s parent ‘995 Patent included a similar limitation to the limitation of dependent claim 12 (i.e., interference means comprises means for blocking the view of what is displayed on the screen). The PTAB has previously determined that “the operation of ‘blocking the view on the screen’ involves visual alteration of the screen” during which execution of the software is not stopped or terminated. Ex. 1020, *Reexam 90/009523 PTAB Decision* at 7; *see also* Section IV.C.1.e) above. Consequently, the PTAB has determined that Chernow’s disclosure of rendering a program unusable or erasing the program does not meet the claim limitation. Ex. 1020, *Reexam 90/009523 PTAB Decision* at 6-8.

Nishio expressly discloses visually altering a displayed image without terminating execution of the software. Namely, Nishio discloses monitoring use of software and “preventing the use of software, while a software user is informed of the fact that a software usage amount has reached a defined amount in which usable data is output in an incomplete form, if the software is used in excess of this usable amount.” Ex. 1007, *Nishio* at p. 2(¶7). For example, Nishio discloses that after the user reaches the usage limit, a display prevention device overlays image patterns over a displayed video signal, while continuing to output the normal audio signal (i.e., blocking the view on the screen). *See, e.g., id.* at p. 9(¶1), Fig. 2, p. 10(¶9), Fig. 7. Nishio also discloses that after the user reaches the usage limit, the audio signal may be turned “off,” while the image signal continues normally. *See, e.g., id.* at p. 14(¶7), p. 15(¶¶13-14), Fig. 13. Nishio has

not been cited or considered during the prosecution or any reexamination of the ‘520 Patent, and is prior art under 35 U.S.C. § 102(b). *See* Section V.C above.

Upon reading the disclosure of Nishio, a skilled artisan would have recognized that modifying Chernow to interfere with execution of the program, without terminating execution entirely, could be desirable. Ex. 1011, *Kitchen Decl.* at ¶ 129. For example, Nishio specifically discloses that the advantage of interfering with execution without terminating the program is that software users can recognize that the interruption is caused by expiration of the amount of usage time purchased, but is not caused due to a failure in the user’s device. Ex. 1007, *Nishio* at p. 2(¶¶ 6-7), p. 10(¶9), p. 11(¶15), p. 15 (¶13). A skilled artisan would have appreciated that this improvement to Chernow would yield a system that would increase the desire for continued use by the user of the software. *Id.* at p. 10(¶9), p. 11(¶16), p. 15(¶14). Nishio also discloses that the interfering aspects are designed to prompt the software user to pay the charge for additional use. *Id.* Thus, it would have been natural and an application of nothing more than ordinary skill and common sense for a skilled artisan at the time the ‘520 application was filed to combine the system of Chernow with the interference aspects of Nishio. Ex. 1011, *Kitchen Decl.* at ¶ 132. Even further, such modifications would have yielded predictable results without undue experimentation. *Id.*

Claim 12	Obvious Over Chernow (Ex. 1002) in view of Tsumura (Ex. 1003) in further view of Nishio (Ex. 1007)
12. The communication system according to	Chernow in view of Tsumura as applied to claim 8 in Section V.A above.

claim 8, [a] wherein said communication terminal device comprises display means having a screen on which the progress of execution of program or data processing is displayed,	<p>Chernow discloses leasing software, such as games, to a user's computer for a prescribed term of use. Ex. 1002, <i>Chernow</i> at 4:68-5:9. Chernow also discloses that leased software is executed on a user's computer, which includes a monitor. <i>Id.</i> at 8:52-57.</p> <p>Nishio discloses software that includes both audio and video, where the video is output to, for example, a TV monitor. Ex. 1007, <i>Nishio</i> at p. 5(¶10), p. 9(¶1), p. 10(¶9), Fig. 2, Fig. 7.</p>
[b] said interference means comprises means for blocking the view of what is displayed on said screen.	<p>Chernow discloses a computer programmed to cause the leased software to render itself unusable or erase itself after calculating that the term of use has expired. Once a program is rendered unusable and/or erased, it does not display a view of the program on the monitor screen. Ex. 1002, <i>Chernow</i> at 5:16-19.</p> <p>Nishio specifically discloses a CPU programmed to superimpose image patterns over a displayed video signal (i.e., blocking the view of what is displayed on the screen), without terminating execution of the software, when a user exceeds a quantity of purchased usage time (i.e., an "accounting count value"). <i>See</i> Nishio as applied to element [b] of claim 12 in Section V.C above for relevant citations.</p>
Claim 14	Obvious Over Chernow (Ex. 1002) in view of Tsumura (Ex. 1003) in further view of Nishio (Ex. 1007)
14. The communication system according to claim 8, further comprising [a] sound generating means for generating a predetermined sound in accordance with the progress of execution of the program or data processing,	<p>Chernow in view of Tsumura as applied to claim 8 in Section V.A above.</p> <p>Chernow discloses leasing software, such as games, to a user's computer for a prescribed term of use. Ex. 1002, <i>Chernow</i> at 4:68-5:9. Chernow does not expressly disclose that the leased software produces sounds.</p> <p>Nishio discloses software that includes both audio and video, where the audio is output through a loud speaker. Ex. 1007, <i>Nishio</i> at p. 5-6(¶10), p. 14(¶7), p. 15(¶¶13-14), Fig. 13, Fig. 12.</p>
[b] wherein said interference means comprises means for preventing said sound generating means from	Chernow discloses a computer programmed to cause the leased software to render itself unusable or erase itself after calculating that the term of use has expired. Once a program is rendered unusable and/or erased, it does not generate sound. Ex. 1002, <i>Chernow</i> at 5:16-19.

generating the sound.	Nishio specifically discloses a CPU programmed to hinder the outputted audio when a user exceeds a quantity of purchased usage time (i.e., an “accounting count value”). Namely, Nishio discloses turning “off” the audio signal, while allowing the image signal to continue normally when the accounting count value is “0.” <i>See</i> Nishio as applied to element [b] of claim 14 in Section V.C above for relevant citations.
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F. Statement of Non-Redundancy

The grounds presented in this Petition are not redundant. With respect to grounds based on Chernow and Tsumura, the PTAB has already determined that Chernow and Tsumura teach each limitation of claims 8, 11, 13 and 14. *See* Section II.B. Similarly, the PTAB has already determined that Chernow, Kato, and Tsumura teach each limitation of claims 9 and 10. *See* Section II.B. With respect to the ground based on the Okamoto Japanese Parent and Tsumura, the PTAB has already determined that Tsumura teaches the “clock means” limitation and the Okamoto Japanese Parent discloses each of the remaining limitations (including the structures and functions of the means-plus-function claim limitations) nearly identically to what is disclosed in the ‘520 Patent. With respect to the ground based on the Okamoto Japanese Parent and Nishio, Nishio discloses interfering with execution after a usage limit has been reached by “blocking the view of what is displayed on said screen” (claim 12), which is not taught by any of the other references.

VI. MANDATORY NOTICES

A. Real Parties-in-Interest and Related Matters

Petitioners, Sony Computer Entertainment America LLC and Microsoft Corporation Inc., are the real parties-in-interest. 37 C.F.R. § 42.8(b)(1). The '520 Patent, along with the other four related patents identified in the table below have all expired as of April 25, 2014, and have each been asserted in the following litigation: Ex. 1027, *ADC Technology Inc. v. Microsoft Corp., et al.*, No. 2:08-CV-01579-RSM (W.D. Wash.), filed October 27, 2008.

US Patent No.	Reexam Control Nos.	Status of Reexam Proceeding
5,775,995	90/009,523, 90/010,663	Reexam Certificate issued on April 24, 2012.
6,193,520	90/009,524, 90/010,666	Patent expired April 25, 2014. Reexam Certificate issued on July 23, 2014.
6,193,520	90/011,098	Terminated.
6,488,508	90/009,521, 95/001,234	All claims rejected or canceled. Awaiting PTAB's Decision on appeal.
6,702,585	90/009,522, 95/001,236	All claims subject to reexam rejected. Awaiting PTAB's Decision on appeal.
6,875,021	90/009,520, 95/001,237	All claims rejected. Awaiting PTAB's Decision on appeal.

B. Lead and Back-Up Counsel Under 37 C.F.R. § 42.8(b)(3) & (4)

Petitioners provide the following designation and service information for lead and back-up counsel. Service of any documents may be made via e-mail or hand-delivery at the e-mail or postal address listed below of the lead or back-up counsel.

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C. Payment of Fees

The undersigned submitted payment by deposit account with the filing of this Petition authorizing the Office to charge fees required under 37 C.F.R. § 42.103(a) and 42.15(a).

VII. CONCLUSION

For at least the reasons given above, Petitioners respectfully request a Covered Business Method Post-Grant Review be instituted for claims 8-14 of the '520 Patent and that these claims be canceled.

Respectfully submitted,

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APPENDIX OF EXHIBITS

Exhibit 1001	U.S. Patent No. 6,193,520 to Okamoto (“the ‘520 Patent”)
Exhibit 1002	U.S. Patent No. 4,999,806 to Chernow, et al. (“Chernow”), filed on September 4, 1987 and issued on March 12, 1991, which is available as prior art under 35 U.S.C. §102(b)
Exhibit 1003	U.S. Patent No. 5,547,202 to Tsumura (“Tsumura”), filed December 30, 1994, issued August 20, 1996, and is a continuation of Ser. No. 19,052 filed February 18, 1993, which is available as prior art under 35 U.S.C. §102(b)
Exhibit 1004	Japanese Published Patent No. H6-334780 to Okamoto (“Okamoto Japanese Parent”), filed May 10, 1993 and published December 2, 1994, which is available as prior art under 35 U.S.C. §102(b)
Exhibit 1005	Certified English Translation of Japanese Published Patent No. H6-334780 and Certificate of Translation
Exhibit 1006	German Patent No. DE 19528017 to Nishio, et al. (“Nishio”), filed on July 31, 1995 and published on February 22, 1996, which is available as prior art under 35 U.S.C. §102(b)
Exhibit 1007	Certified English Translation of German Patent No. DE 19528017 and Certificate of Translation
Exhibit 1008	Japanese Published Patent No. 04-10191 to Kato (“Kato”), filed on April 27, 1990 and published on January 14, 1992, which is available as prior art under 35 U.S.C. §102(b).
Exhibit 1009	Certified English Translation of Japanese Published Patent No. 04-10191 and Certificate of Translation
Exhibit 1010	<i>Ex Parte</i> Reexamination Control No. 90/010666 File History
Exhibit 1011	Expert Declaration of Mr. Garry E. Kitchen
Exhibit 1012	US Patent 5,489,103, filed April 25, 1994 (“the ‘103 Patent”)
Exhibit 1013	US Patent 5,735,744, filed November 9, 1995 (“the ‘744 Patent”)
Exhibit 1014	US Patent 5,775,995, filed May 3, 1996 (“the ‘995 Patent”)
Exhibit 1015	‘520 Patent File History
Exhibit 1016	<i>Ex Parte</i> Reexamination Control No. 90/009524 Response to Notice of Incomplete Request dated August 17, 2009
Exhibit 1017	<i>Ex Parte</i> Reexamination Control No. 90/009524 Order Granting Request dated November 14, 2009
Exhibit 1018	<i>Ex Parte</i> Reexamination Control No. 90/010666 Request filed September 4, 2009
Exhibit 1019	<i>Ex Parte</i> Reexamination Control No. 90/011098 File History
Exhibit 1020	<i>Ex Parte</i> Reexamination Control No. 90/009523 PTAB Decision

	issued November 10, 2011
Exhibit 1021	US Patent No. 6,488,508
Exhibit 1022	US Patent No. 6,875,021
Exhibit 1023	Infringement Contentions against SCEA
Exhibit 1024	<i>Inter Partes</i> Reexamination Control No. 95/001234 Patent Owner Appeal Br. dated November 25, 2013
Exhibit 1025	<i>Inter Partes</i> Reexamination Control No. 95/001234 Patent Owner Response dated May 20, 2013
Exhibit 1026	<i>Inter Partes</i> Reexamination Control No. 95/001234 Action Closing Prosecution dated April 19, 2013
Exhibit 1027	Complaint in <i>ADC Technology Inc., v Microsoft Corporation, Nintendo of America Inc., Sony Corporation of America and Sony Computer Entertainment America Inc.</i> Case No. 2:08-cv-01579-RSM (W.D. Wash)

CERTIFICATE OF SERVICE ON PATENT OWNER
UNDER 37 C.F.R. § 42.105(a)

Pursuant to 37 C.F.R. §§ 42.6(e) and 42.105(b), the undersigned certifies that on the 8th day of December, a complete and entire copy of this Petition for Covered Business Method Post-Grant Review and all supporting exhibits were provided via Federal Express to the Patent Owner by serving the correspondence address of record for the '520 Patent and Patent Owner's litigation counsel:

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Respectfully submitted,

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