

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SONY INTERACTIVE ENTERTAINMENT LLC
Petitioner,

v.

QUANTUM IMAGING LLC
Patent Owner.

Case No. IPR2023-00954
U.S. Patent No. 8,458,028

**PETITION FOR INTER PARTES REVIEW
OF U.S. PATENT NO. 8,458,028**

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LIST OF EXHIBITS

Exhibit #	Description
Ex-1001	U.S. Patent No. 8,458,028 (“the ’028 Patent”)
Ex-1002	U.S. Pat. Pub. No. US2004/0078263
Ex-1003	Prosecution File History of the ’028 Patent
Ex-1004	Declaration of David Crane
Ex-1005	Curriculum Vitae for David Crane
Ex-1006	Complaint for Patent Infringement, dated June 3, 2022, in the matter of <i>Quantum Imaging LLC v. Sony Group Corporation, et al.</i> , W.D. Texas, Case No. 6:22-cv-00573-ADA-DTG
Ex-1007	U.S. Patent No. 5,933,811 (“Angles”)
Ex-1008	U.S. Patent No. 7,168,051 (“Robinson”)
Ex-1009	U.S. Patent No. 5,949,876 (“Ginter”)
Ex-1010	Amended Scheduling Order, dated February 17, 2023, in the matter of <i>Quantum Imaging LLC v. Sony Group Corporation, et al.</i>

I. INTRODUCTION

Pursuant to 35 U.S.C. § 311 *et seq.* and 37 C.F.R. § 42.1 *et seq.*, Sony Interactive Entertainment LLC (“Petitioner”) hereby petitions for *inter partes* review of United States Patent No. 8,458,028 (the “’028 Patent”). Petitioner respectfully submits that claims 1 and 3-9 of the ’028 Patent (the “Challenged Claims”) are unpatentable under 35 U.S.C. § 103 in view of the prior art references discussed herein. This Petition demonstrates by a preponderance of the evidence that there is a reasonable likelihood that Petitioner will prevail with respect to at least one of these Challenged Claims. Accordingly, it is respectfully requested that the Board institute an *inter partes* review of the ’028 Patent pursuant to 37 C.F.R. § 42.108.

This Petition is supported by the Declaration of David Crane (Ex-1004), who is an expert in the claimed subject matter. *See* Ex-1004, ¶¶5-20; Ex-1005.

II. MANDATORY NOTICES UNDER 37 C.F.R. §42.8

A. Real Party-in-Interest (37 C.F.R. § 42.8(b)(1))

The real parties-in-interest in this Petition are Petitioner, Sony Interactive Entertainment Inc., Bluepoint Games, Inc., Sony Group Corporation, and Sony Corporation of America (“RPIs”).

B. Related Matters (37 C.F.R. § 42.8(b)(2))

1. Judicial Matters

As of the filing date of this Petition and to the best of Petitioner's knowledge, the '028 Patent is involved in the Related Matter of *Quantum Imaging LLC v. Sony Group Corporation, et al.*¹, W.D. Texas, Case No. 6:22-cv-00573-ADA-DTG (filed on June 3, 2022). *See* Ex-1006.

2. Administrative Matters

As of the filing date of this Petition and to the best of Petitioner's knowledge, the Challenged Claims are not involved in any administrative matters.

3. Related Patents

As of the filing date of this Petition and to the best of Petitioner's knowledge, the '028 Patent is related to U.S. Pat. Nos. 7,373,377, 8,225,220, 8,228,325, 10,255,724, 11,195,333, 10,846,941, 10,991,165, and U.S. Pat. App. No. 15/817,815.

¹ Sony Group Corporation and Sony Corporation of America have been dismissed from the lawsuit.

C. Lead/Back-up Counsel (37 C.F.R. § 42.8(b)(3)):

Lead Counsel	Back-Up Counsel
David T. Xue, Ph.D., Reg. No. 54,554 KXT LAW, LLP 1775 Woodside Road, Suite 204 Redwood City, California 94061 Tel: 650-239-0420 Fax: 650-249-5013 david@kxtlaw.com	Karineh Khachatourian (<i>pro hac vice</i> admission to be requested) KXT LAW, LLP 1775 Woodside Road, Suite 204 Redwood City, California 94061 Tel: 650-239-0420 Fax: 650-249-5013 karinehk@kxtlaw.com

D. Notice of Service Information (37 C.F.R. § 42.8(b)(4)):

Please direct all correspondence to lead and back-up counsel at the above addresses. Petitioner consents to electronic service at the email addresses above.

III. FEES (37 C.F.R. § 42.15(a))

In accordance with 37 C.F.R. § 42.103(a), the Office is authorized to charge \$41,500 and any additional fees to Deposit Account No. 60-4652.

IV. STANDING (37 C.F.R. § 42.104(a))

Petitioner certifies that the '028 Patent for which review is sought is available for *inter partes* review and that Petitioner is not barred or estopped from requesting *inter partes* review of the Challenged Claims on the grounds identified herein. 37 C.F.R. § 42.104(a). This Petition is filed pursuant to 37 C.F.R. § 42.106(a).

V. PRECISE RELIEF REQUESTED

A. Grounds for Review

Petitioner respectfully requests review of the Challenged Claims of the '028 Patent, and cancellation of the Challenged Claims based on the grounds listed below.

Ground	Claims	References
1	1, 3-9	Angles in view of the knowledge of a person of ordinary skill in the art
2	1, 3-9	Robinson in view of the knowledge of a person of ordinary skill in the art
3	6	Angles, Robinson, and Ginter in view of the knowledge of a person of ordinary skill in the art

- Ground 1: Claims 1, 3-9 are obvious under 35 U.S.C. § 103 over U.S. Patent No. 5,933,811 to Angles et al. (“Angles”) (Ex-1007) in view of the knowledge of a person of ordinary skill in the art. Angles was issued on

August 3, 1999 and thus qualifies as prior art under at least pre-AIA 35 U.S.C. § 102(a) and § 102(b) because Angles was patented more than one year prior to the effective filing date of the '028 Patent (Oct. 16, 2002).

- Ground 2: Claims 1, 3-9 are obvious under 35 U.S.C. § 103 over U.S. Patent No. 7,168,051 to Robinson et al. (“Robinson”) (Ex-1008) in view of the knowledge of a person of ordinary skill in the art. Robinson was filed on December 20, 2000 as a continuation-in-part of U.S. Pat. App. No. 09/686,206 filed on October 10, 2000, and Robinson was published as US 2002/0113820 on August 22, 2002. Robinson thus qualifies as prior art under at least pre-AIA 35 U.S.C. § 102(a) and § 102(e)(1) because it was filed and published in the United States before the effective filing date for the '028 Patent (Oct. 16, 2002).
- Ground 3: Claim 6 is obvious under 35 U.S.C. § 103 over Angles, Robinson, and U.S. Patent No. 5,949,876 to Ginter et al. (“Ginter”) (Ex-1009) in view of the knowledge of a person of ordinary skill in the art. Ginter was issued on September 7, 1999 and thus qualifies as prior art under at least pre-AIA 35 U.S.C. § 102(a) and § 102(b) because Ginter was patented more than one year prior to the effective filing date of the '028 Patent.

VI. THE '028 PATENT

A. Summary of the '028 Patent

The '028 Patent, titled “System and Method for Integrating Business-related Content into an Electronic Game,” relates “generally to electronic games and more particularly to the integration of business-related content into a computer game.” Ex-1001, 1:8-10. The specification of the '028 Patent identifies that the problem with “conventional methods of advertising” is that they “limit the opportunity to capture the attention of the player of the game application to a period of time before the start of a game and a period of time after the end of the game, since during the game the user is focused on the game play.” *Id.*, 1:24-28.

The “Brief Summary of the Invention” of the '028 Patent describes its invention as providing “a method of seamlessly integrating business-related content into the subject matter of an electronic game.” *Id.*, 1:36-37. More specifically, the claimed invention recites “integrating business-related content over a computerized network, into a primary electronic device that accesses a game application, from at least one secondary electronic device that accesses business-related content on a plurality of web pages.” *Id.*, claim 1. In some embodiments, the “web page” is “customized with content for use with said one of said plurality of applications.” Ex-1001, claim 7. “FIG. 1 depicts a block diagram of an environment suitable for practicing the illustrative embodiment of the present

invention where the game is initiated over a network” (*id.*, 2:50-52):

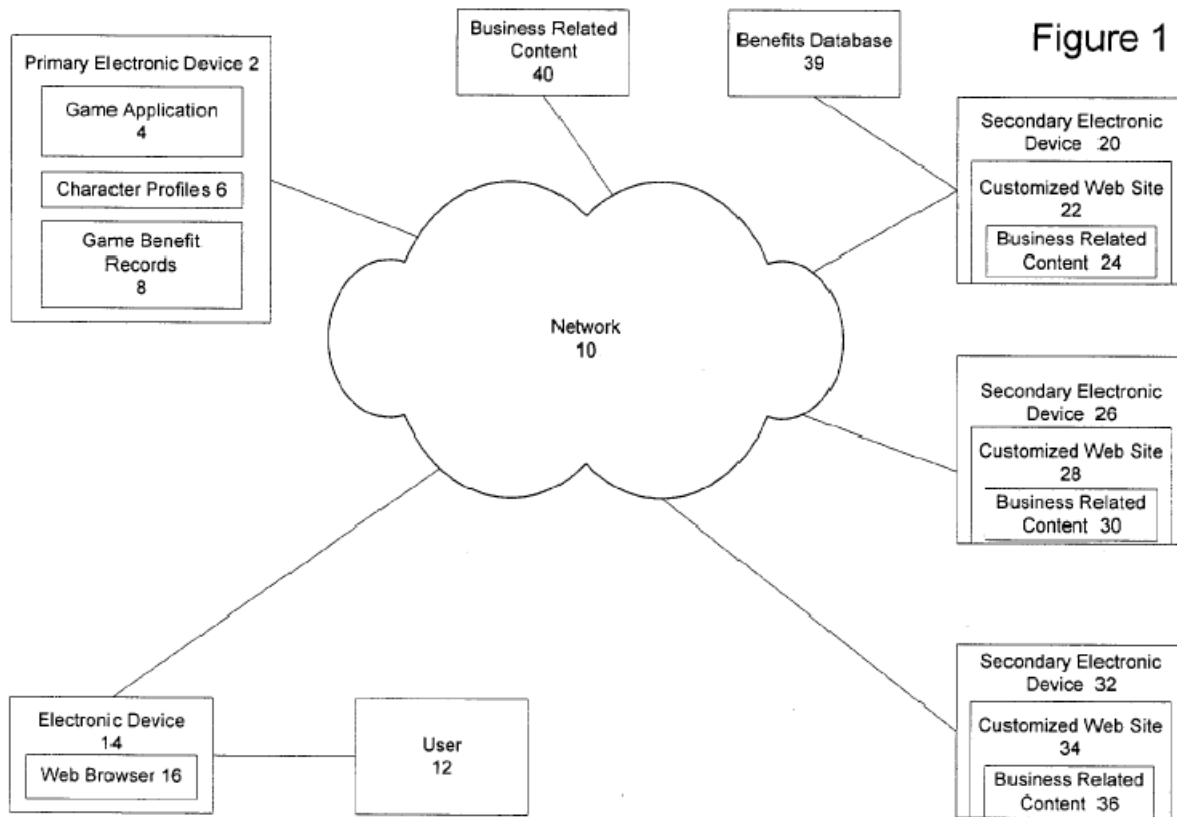
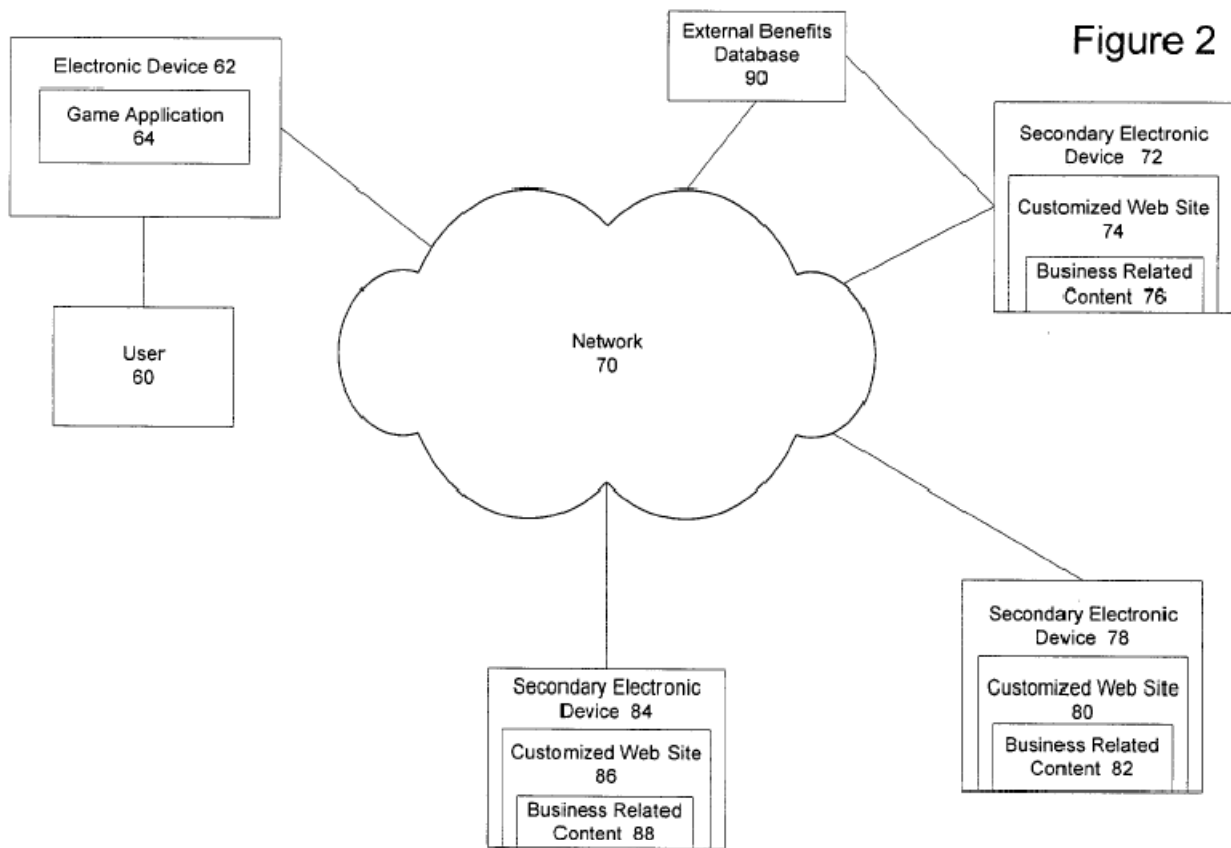


FIG. 2 depicts a block diagram of an alternate environment suitable for practicing the illustrative embodiment of the present invention where a local device holds the game application (*Id.*, 2:53-56):



The claimed invention of the '028 Patent is covered by method claims only. Ex-1001, claims 1-9. As shown by independent Claims 1 and 7, two key steps of the claimed invention are (1) the “automatically integrating” step for “automatically integrating business-related content from at least one of said web pages of said secondary electronic device into said locally executed game application during execution of said game application,” and (2) the “automatically re-directing” step for “automatically re-directing said user to one of said web pages of said secondary electronic device from said primary electronic device, said re-direction being integrated into said game application and said re-direction

occurring as part of the user executing said game application.” Ex-1001, claims 1, 7. As discussed in the Prosecution History Section below, the “automatically re-directing” step was disclosed by the prior art cited during prosecution of the ’028 Patent and is not novel/patentable by itself. As a result, the Examiner rejected claims containing only the “automatically re-directing” step and the Board affirmed the Examiner’s rejection on appeal. The Applicant ultimately canceled those unallowable claims.

B. Prosecution History

The ’028 Patent was issued from U.S. Pat. App. No. 10/272,408 (“the ’408 Application”), which was filed on October 16, 2002, published as U.S. Pat. Pub. No. US2004/0078263 (Ex-1002) on Apr 22, 2004, and issued on June 4, 2013. As originally filed, claim 1 was written as:

1. In a network with a primary electronic device holding a game application, and at least one secondary electronic device holding business-related content, a method, comprising the steps of:
 - receiving a request at said primary electronic device to initiate said game application from a user interfaced with said network;
 - initiating said game application; and
 - integrating business-related content into said game application during the execution of said game application.

Ex-1002, claim 1.

During over ten years of prosecution, claims of the '408 Application were rejected ten times by the Examiner, and were appealed three times by the Applicant. In response to the rejections by the Examiner, the Applicant made numerous amendments to the claims, resulting in Claim 1 in the finally issued '028 Patent to be substantially different from what was originally filed:

“1. A method of integrating business-related content over a computerized network, into a primary electronic device that accesses a game application, from at least one secondary electronic device that accesses business-related content on a plurality of web pages, the method comprising:

receiving a request at said primary electronic device to initiate a locally executed game application that is accessible at said primary electronic device, from a user interfaced with said network;

initiating said game application at said primary electronic device;

automatically integrating business-related content from at least one of said web pages of said secondary electronic device into said locally executed game application during execution of said game application;

automatically re-directing said user to one of said web pages of said secondary electronic device from said primary electronic device, said re-direction being integrated into said game application and said re-direction occurring as part of the user executing said game

application; and

executing a user action on said business-related content from
said secondary electronic device.”

Ex-1001, 7:13-35, claim 1.

In fact, the Applicant made so many amendments to the claims during prosecution, some of the amendments that were intended to overcome the prior art have no support in the specification of the '408 Application and the Examiner specifically requested the unsupported claims to be canceled (Ex-1003, p. 414).

In its decision on the third/last Appeal by the Applicant, the Board affirmed the Examiner in part, agreeing with the Examiner that the independent claims containing only the limitation of “automatically re-directing said user to one of said web pages of said secondary electronic device from said primary electronic device” without also containing the “automatically integrating business-related content” limitation were obvious in view of the prior art. Ex-1003, p. 33 (“Here, we agree with the Examiner that Czepluch discloses the automatic re-directing feature with respect to Figure 4”). The Applicant then canceled the rejected claims affirmed by the Board and the rest of the claims of the '408 Application were issued as the '028 Patent. *Id.*, p. 16.

C. Priority Date

As shown on the face of the '028 Patent, the effective filing date of the '408 Application is October 16, 2002, which should be the earliest priority date of the

'028 Patent.

D. Level of Ordinary Skill in the Art

A person of ordinary skill in the art (“POSITA”) at the time of the alleged invention would have had a bachelor’s degree in computer engineering, computer science, or a similar discipline, and/or two years of professional experience in the fields of networking and network-based systems or applications, such as client-server and web-based systems, in the specific context of console and gaming or an equivalent level of skill, knowledge, and experience. A POSITA would have at least a general knowledge of online and in-game advertising methods prevalent in the field, as well as at least a general knowledge of 3D rendering and virtual reality. Ex-1004, ¶43.

E. Claim Construction

For IPR proceedings, the Board applies the claim construction standard set forth in *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc). *See* 83 Fed. Reg. 51,340-51,359 (Oct. 11, 2018). Under *Phillips*, claim terms are typically given their ordinary and customary meanings, as would have been understood by a POSITA, at the time of the invention, having taken into consideration the language of the claims, the specification, and the prosecution history of record. *Phillips*, 415 F.3d at 1313; *see also id.* at 1312-16. The Board, however, only construes the claims when necessary to resolve the underlying controversy. *Toyota Motor Corp.*

v. Cellport Sys., Inc., IPR2015-00633, Paper 11 at 16 (Aug. 14, 2015) (citing *Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999)).

Petitioner believes that no express constructions of the claims are necessary to assess whether the prior art reads on the challenged claims. It is noted that this interpretation is applicable to the *inter partes* review (“IPR”) sought herein only and should not be construed as constituting, in whole or in part, Petitioner’s own interpretation of any claims for any other purposes, including any litigation.

Accordingly, Petitioner expressly reserves the right to present an interpretation of a claim term in other proceedings, which is different, in whole or in part, from that presented in this Petition.

Petitioner reserves the right to assert in litigation that its proposed constructions are proper and that certain terms are indefinite. Petitioner does not concede, by seeking this IPR, that the challenged claims are of definite scope or properly described under 35 U.S.C. § 112. While the PTAB is not permitted statutorily to invalidate patents for indefiniteness in an IPR (*Cuozzo Speed Techs. v. Lee*, 579 U.S. 261, 275 (2016)), the PTAB may nevertheless invalidate a potentially indefinite patent for obviousness so long as it can ascertain that the prior art falls within the scope of the patent. *Vibrant Media v. GE*, IPR2013-00172, Paper 50 at 11 (PTAB July 28, 2014) (*aff’d*, *Gen. Elec. Co. v. Vibrant Media, Inc.*, 626 F. App’x 1010 (Fed. Cir. 2015)); *see also Interval Licensing LLC*

v. AOL, Inc., 766 F.3d 1364, 1373 (Fed. Cir. 2014) (term may be indefinite even though examples in the specification provide some scope for prior art analysis).

VII. EXPLANATION OF GROUNDS FOR INVALIDITY

As Mr. Crane explains in his declaration, a POSITA would have been aware of various different types of software, programming languages, and applications related to the patented subject matter of the '028 Patent before the priority date of the '028 Patent. Ex-1004, ¶¶64-72. Specifically, the Challenged Claims of the '028 Patent are rendered obvious at least by the following grounds.

A. Ground 1: Angles in View of the Knowledge of a POSITA Renders Obvious Challenged Claims 1, 3-9

1. Prior Art

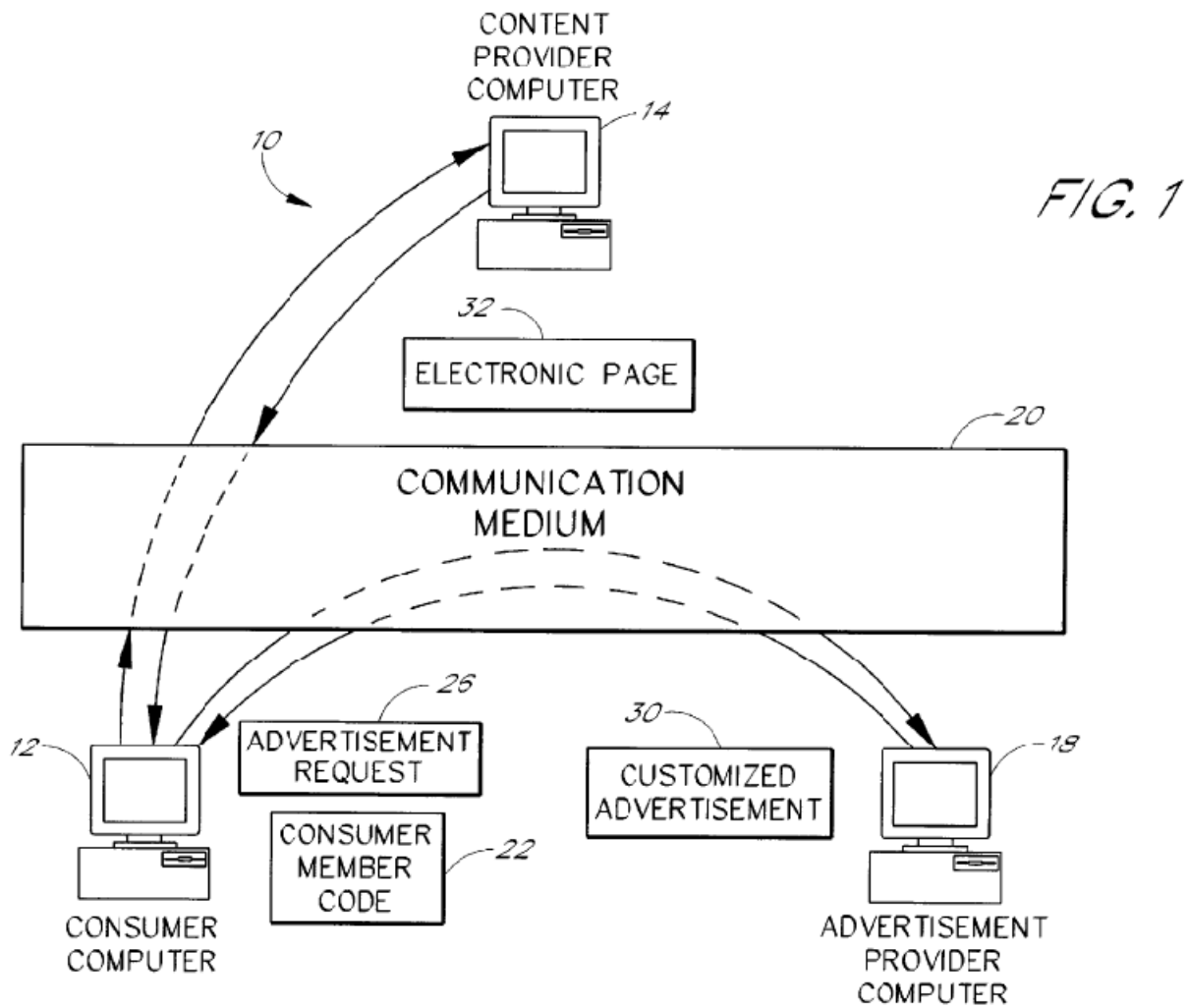
(a) Overview of Angles (Ex-1007)

Angles was filed August 20, 1996, and was issued as US Pat. No. 5,933,811 on August 3, 1999. Angles thus qualifies as prior art under 35 U.S.C. § 102 against the '028 Patent. Like the '028 Patent, which provides “a method of seamlessly integrating business-related content into the subject matter of an electronic game” (Ex-1001, 1:36-37), Angles relates “in particular, to an apparatus and method for delivering customized advertisements within interactive communications systems” (Ex-1007, 1:9-11). Specifically, Angles discloses a computer that “can **integrate the customized advertisements 30 into** offerings such as **on-line games**, video programming, internet radio, virtual reality

environments and the like.”² *Id.*, 21:57-60.

FIG. 1 of Angles depicts a “preferred interactive communication system” that “includes a consumer computer 12, a content provider computer 14 and an advertisement provider computer 18 which communicate with each other by use of a communication medium 20” (*Id.*, 7:47-52):

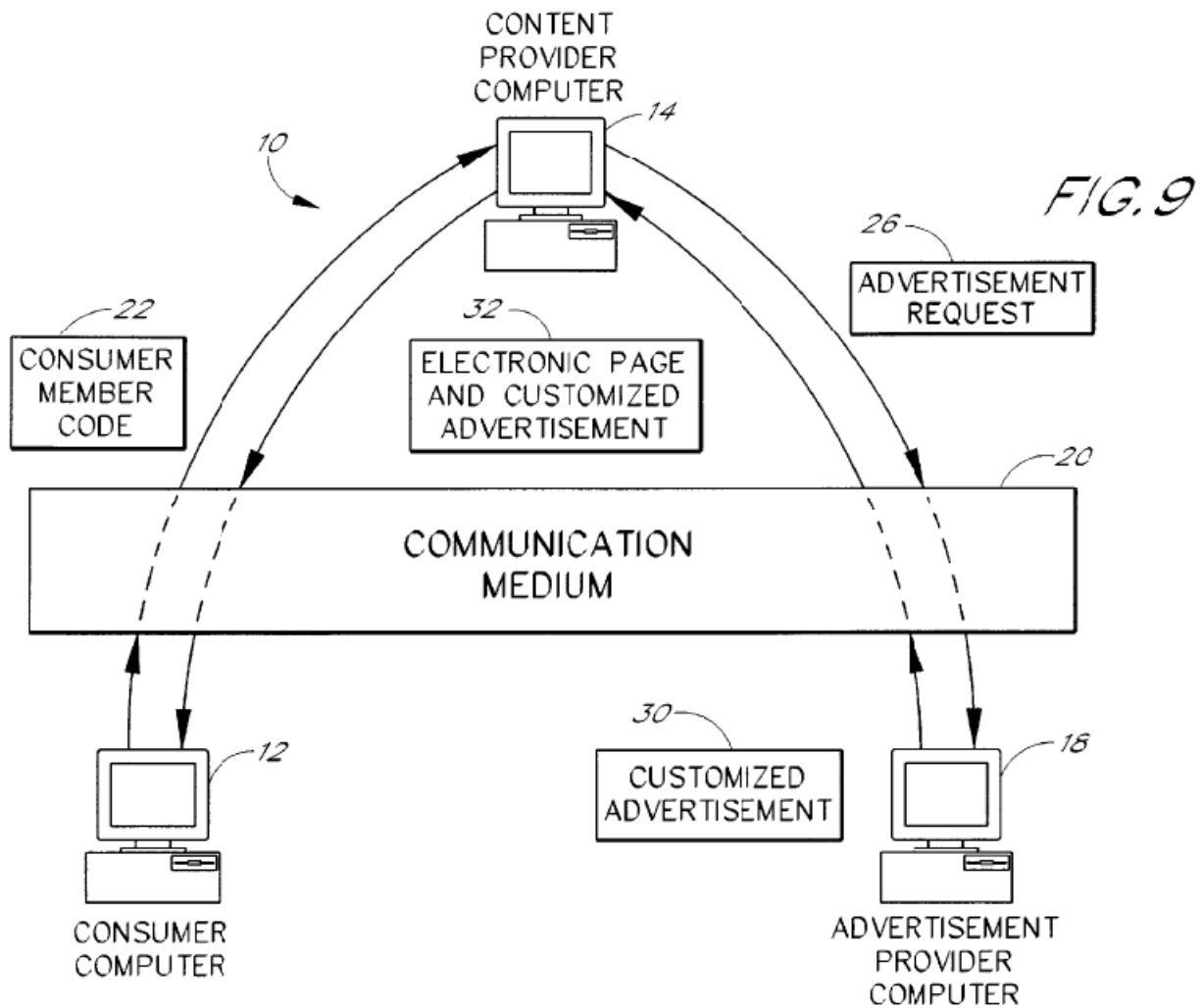
² All emphasis in this Petition is added by Petitioner unless otherwise noted.



During operation, “the content provider computer 14 transfers an electronic page 32 to the consumer computer 12,” where the “preferred electronic page 32 contains an embedded advertisement request 26.” Ex-1007, 7:57-60. “When the consumer computer 12 receives the electronic page 32, it executes the embedded advertisement request 26. The embedded advertisement request 26 directs the consumer computer 12 to establish a communications link with the advertisement

provider computer 18.” Ex-1007, 7:61-65. Note that “[i]n the preferred embodiment, the advertisement request 26 is an HTML tag” (*id.*, 15:5-6) that “directs the advertisement provider computer 18 to execute a content provider script” that “contains a content provider member code” (*id.*, 8:49-51). “The advertisement provider computer 18 obtains the consumer member code 22 and uses the consumer's member code 22 to access the consumer's profile in a demographic database (not shown). Based on the consumer's profile, the advertisement provider computer 18 selects an appropriate customized advertisement 30. The advertisement provider computer 18 then sends the customized advertisement 30 to the consumer computer 12.” *Id.*, 8:10-17; Ex-1004, ¶¶78-80.

FIG. 9 of Angles depicts an alternative embodiment where “advertisement provider computer 18 sends the customized advertisement 30 to the content provider computer 14” (Ex-1007, 21:35-37):



As shown by FIG. 9, “[u]pon receiving the customized advertisement, the content provider incorporates the customized advertisement 30 into an electronic page 32. The content provider computer 14 then forwards the electronic page 32, combined with the customized advertisement 30 to the consumer computer 12. The consumer computer 12 then displays the electronic page 32 and customized advertisement 30 to the consumer.” Ex-1007, 21:38-44. Note that “transferring the customized advertisement 30 from the advertisement provider computer 18 to

the content provider computer 14 happens prior to sending the electronic page 32 to the consumer” Ex-1007, 21:45-48. As a result, “the electronic page 32 appears to the consumer like all other electronic pages 32 on the Internet 33, except that it contains the customized advertisement 30” *Id.*, 21:48-51. Since the “embodiment shown in FIG. 9 allows the customized advertisements 30 to be incorporated directly into the content provider's offerings” (*id.*, 21:53-55), “the content provider computer 14 can **integrate the customized advertisements 30 into offerings such as on-line games**, video programming, internet radio, virtual reality environments and the like” (*id.*, 21:57-60). In the example of the “on-line games” being “interactive car races,” “the customized advertisements 30” can be integrated “into signs and billboards which appear in the interactive game.” *Id.*, 21:62-65; Ex-1004, ¶¶81-84.

As explained by Mr. Crane in his declaration (Ex-1004, ¶¶102-105), Angles in view of the knowledge of a POSITA would render claims 1 and 3-9 obvious as detailed by the element by element claim analysis below.

2. Claim 1

- (a) **1[preamble]: A method of integrating business-related content over a computerized network, into a primary electronic device that accesses a game application, from at least one secondary electronic device that accesses business-related content on a plurality of web pages, the method comprising:**

To the extent the preamble is limiting, Angles discloses this limitation. As shown by FIG. 1 reproduced above, Angles discloses that a consumer can direct “one of the consumer computers to **access an offering** existing in one of the content provider computers” (Ex-1007, Abstract), and the content provider computer “can **integrate** customized advertisements 30 into offerings such as on-line **games**, video programming, internet radio, virtual reality environments and the like.” (*Id.*, 21:57-60).

As Mr. Crane explained in his declaration, the “customized advertisements” in Angles constitutes the “business-related content” of the ’028 Patent under the plain and ordinary meaning of the term. Ex-1004, ¶¶47-49. Angles further discloses that “customized advertisements 30” is generated by an “advertisement provider computer 18” where “the advertisement provider computer 18 is a website connected to the World Wide Web.” Ex-1007, 13:22-25.

In Angles, the consumer computer that accesses the offering such as a game application can be the primary electronic device of the ’028 Patent, and the content

provider computer and/or the advertisement provider computer in Angles that accesses or holds the business-related content such as the customized advertisements can be the secondary electronic device of the '028 Patent. As Angles explains, the World Wide Web ("Web") refers generally to both "(1) a distributed collection of interlinked, user-viewable hypertext documents (commonly referred to as 'Web documents' or 'electronic pages' or 'home pages') that are accessible via the Internet, and (2) the client and server software components which provide user access to such documents using standardized Internet protocols." Ex-1007, 7:28-33. A POSITA would understand that a website necessarily includes a plurality of web pages. Ex-1004, ¶107.

Accordingly, Angles discloses a "method of integrating business-related content [e.g., customized advertisements] over a computerized network, into a primary electronic device that accesses a game application, from at least one secondary electronic device that accesses business-related content on a plurality of web pages [e.g., website]." *Id.*, ¶¶106-108.

- (b) 1[a]: receiving a request at said primary electronic device to initiate a locally executed game application that is accessible at said primary electronic device, from a user interfaced with said network;**

Angles teaches this limitation. Angles discloses that a consumer computer can receive a request from a consumer to initiate/access an offering ("a consumer

directs one of the consumer computers to access an offering existing in one of the content provider computers” wherein “the offering from the content provider computer” is locally accessible (*See* Ex-1004, ¶109) “and displayed to the consumer” by the consumer computer.) Ex-1007, Abstract.

As discussed in the prior section, the “offering” can be an online **game** accessible over the Internet and a consumer browser module running on the consumer computer can be a locally executed game application. *Id.*, 10:46-50 (“[T]he consumer browser module 40 (hereinafter referred to as the consumer browser) is a software program which allows a consumer to access different content providers through the communication medium 20.”).

As Mr. Crane explained in his declaration, a POSITA would have recognized that a browser program that resides on a consumer/game player’s computer served as a locally executed game application. Ex-1004, ¶¶72, 84, 109, 112. Here, the consumer interfaces with the consumer computer. Ex-1007, 10:21-23 (“the consumer computer 12 is a device which allows a consumer to interact with the communication medium 20”). As shown by FIG. 1 reproduced above, the “consumer computer 12” and the “content provider computer 14” “communicate with each other by use of a communication medium 20.” *Id.*, 7:49-52. As Angles explains, “the presently preferred computer medium includes the Internet 33 which is a global network of computers.” Ex-1007, 9:5-7.

Accordingly, Angles discloses “receiving a request at said primary electronic device to initiate a locally executed game application that is accessible at said primary electronic device, from a user interfaced with said network” Ex-1004, ¶¶109-110.

(c) 1[b]: initiating said game application at said primary electronic device;

Angles teaches this limitation. As shown by FIG. 1 and as discussed above, Angles discloses that the consumer computer 12 can access/execute an offering, e.g., an online game, provided by the content provider computer 14, upon receiving a request from the consumer. “For example, the consumer invokes a browser which executes on the consumer computer 12. The browser, in turn, establishes a communication link directly with the Internet 33 or with the Internet provider 34 via a communications link. Once connected to the Internet provider 34, the consumer can direct the browser to access information provided by one of the content provider computers 14.” Ex-1007, 9:65-10:4.

Accordingly, Angles discloses “initiating said game application at said primary electronic device.” Ex-1004, ¶¶111-113.

- (d) 1[c]: automatically integrating business-related content from at least one of said web pages of said secondary electronic device into said locally executed game application during execution of said game application;**

Angles teaches this limitation. As discussed above, Angles discloses an “advertisement provider computer 18” having a plurality of web pages, wherein the advertisement provider computer 18 generates business-related content such as “customized advertisements 30.” “The customized advertisements are selected based on consumer profiles and are then integrated with offerings maintained by different content providers.” Ex-1007, Abstract.

As Mr. Crane explains in his declaration, the integration of the customized advertisements with the offerings happens automatically without human initiation or intervention.³ Ex-1004, ¶117.

FIG. 9 reproduced above depicts an embodiment that “allows the customized advertisements 30 to be incorporated directly into the content provider's offerings. Thus, ... the content provider computer 14 can integrate the customized

³ Mr. Crane’s opinion is consistent with the PTAB’s decision in the appeal filed by the Applicant during the prosecution of the ’028 Patent. In its decision, the PTAB determined that if “integration ... is effected by physical operation of the user,” it “is thus not automatic.” Ex-1003, p. 33.

advertisements 30 into offerings such as on-line games, video programming, internet radio, virtual reality environments and the like.” Ex-1007, 21:53-60. Note that the business content can be integrated “during execution of said game application.” *See id.*, 21:61-22:2 (“For example, assuming the content provider computer 14 offers consumers **on-line games, such as interactive car races**. In this example, the content provider computer 14 can **integrate the customized advertisements 30 into signs and billboards which appear in the interactive game**. In other embodiments, the content provider computer 14 can **integrate the customized advertisements 30 into three-dimensional worlds** defined by the Virtual Reality Modeling Language (VRML 1.0).”).

Accordingly, Angles discloses “automatically integrating business-related content from at least one of said web pages of said secondary electronic device into said locally executed game application during execution of said game application.” Ex-1004, ¶¶114-118.

- (e) **1[d]: automatically re-directing said user to one of said web pages of said secondary electronic device from said primary electronic device, said re-direction being integrated into said game application and said re-direction occurring as part of the user executing said game application; and**

Angles teaches this limitation. In practice, a POSITA would understand that re-directing a user to a web page means displaying the web page to the user on a

computer associated with the user, e.g., the consumer computer 12 associated with a consumer as shown in FIGs. 1 and 9.

As Mr. Crane explains in his declaration, displaying the web page to the user is the same as “automatically re-directing” the user as part of the game execution. Ex-1004, ¶119. As discussed above, Angles discloses the “advertisement provider computer 18” has a plurality of web pages and generates business-related content such as “customized advertisements 30.”

As shown by FIG. 9 of Angles reproduced above, “the advertisement provider computer 18 sends the customized advertisement 30 to the content provider computer 14. Upon receiving the customized advertisement, the content provider incorporates the customized advertisement 30 into an electronic page 32. The content provider computer 14 then forwards the electronic page 32, combined with the customized advertisement 30 to the consumer computer 12. The consumer computer 12 then displays the electronic page 32 and customized advertisement 30 to the consumer.” Ex-1007, 21:35-44. “The embodiment shown in FIG. 9 allows the customized advertisements 30 to be incorporated directly into the content provider's offerings. Thus, in addition to integrating the customized advertisements 30 into an electronic page 32, the content provider computer 14 can integrate the customized advertisements 30 into offerings such as on-line games, video programming, internet radio, virtual reality environments and the like.” *Id.*, 21:53-

60.

In Angles, the user is being automatically re-directed to web pages containing business-related content as part of the user executing said game application while the game is being run. *See* Ex-1007, 4:6-16 (“The invention also supports custom **advertisements which can contain hyper-links to other information**. The hyper-links typically direct the user’s Internet browser to access different websites on the Internet. For example, if a consumer wishes to obtain additional information about an advertised product or service, the consumer may simply use a mouse to **select an embedded hyper-link in the custom advertisement and be immediately transported to an advertiser’s website**. At the advertiser’s website, the user may receive a directed sales pitch, more information or a purchase order request form.”).

Accordingly, Angles discloses “automatically re-directing said user to one of said web pages of said secondary electronic device from said primary electronic device, said re-direction being integrated into said game application and said re-direction occurring as part of the user executing said game application.” Ex-1004, ¶¶78, 119-122.

(f) **1[e]: executing a user action on said business-related content from said secondary electronic device.**

Angles teaches this limitation. Angles discloses that a consumer may

execute a user action, e.g., selecting via a mouse, on the custom advertisement displayed to the user. Ex-1007, 4:9-14 (“if a consumer wishes to obtain additional information about an advertised product or service, the consumer may simply **use a mouse to select an embedded hyper-link in the custom advertisement** and be immediately transported to an advertiser's website”); *see also id.*, 15:49-55 (“For example, if after viewing a customized advertisement 30, a consumer wishes to obtain additional information about an advertised product or service, the consumer can simply select the hyper-link in the custom advertisement 30 and be immediately transported to a different content provider computer 14 which contains more advertising information.”).

Accordingly, Angles discloses “executing a user action on said business-related content from said secondary electronic device.” Ex-1004, ¶¶123-125.

3. Claim 3: The method of claim 1 wherein said game application displays branded business-related content to said user.

Angles teaches this limitation. *See* § VII.A.2.(e).

Accordingly, Angles discloses “said game application displays branded business-related content to said user.” Ex-1004, ¶¶126-129.

4. Claim 4: The method of claim 3 wherein said branded business-related content is dynamically updated.

Angles teaches this limitation. Angles discloses that the customized

advertisement can be dynamically updated for the consumer to see on the consumer's computer 12. Ex-1007, 20:11-17 (“[I]f the consumer continues to view the electronic page 32, the advertising module 62 **continues to update the customized advertisements** 30 that are seen on the consumer's computer 12. For example, if a consumer views a particular electronic page 32 for more than a minute, the advertising module 52 can send a new customized advertisement 30.”).

Accordingly, Angles discloses “said branded business-related content is dynamically updated.” Ex-1004, ¶¶130-132.

5. Claim 5

- (a) 5[preamble]: The method of claim 1, comprising the further steps of:**

See § VII.A.2.(a). Ex-1004, ¶¶133-134.

- (b) 5[a]: executing game-related user actions in said game application as a result of user choices;**

Angles teaches this limitation. As shown by FIG. 1 and as discussed above, Angles discloses that the consumer computer 12 can execute an offering, e.g., an online game, provided by the content provider computer 14, upon receiving a request from the consumer. Ex-1007, 9:65-10:4 (“For example, the consumer invokes a browser which executes on the consumer computer 12. The browser, in turn, establishes a communication link directly with the Internet 33 or with the Internet provider 34 via a communications link. Once connected to the Internet

provider 34, the consumer can direct the browser to access information provided by one of the content provider computers 14.”). A POSITA would understand that **executing game-related user actions in said game application as a result of user choices** is inherent in playing any game. Ex-1004, ¶135.

Accordingly, Angles discloses “executing game-related user actions in said game application as a result of user choices.” *Id.*, ¶¶135-141.

(c) 5[b]: generating a player profile based on said user choices made during said game application;

Angles teaches this limitation. Angles discloses tracking consumer responses to the customized advertisements while accessing an offering and to update the consumer profile accordingly. Ex-1007, 3:7-17 (“The advertisement provider's computer stores demographic information about consumers, and sends customized advertisements to the consumers based on the consumers demographic profile and tracks consumer responses to the customized advertisements. For example, when accessing a content provider's website, a consumer with a demographic profile indicating an interest in farming would be sent customized advertisements for farm products by the advertisement provider. Customer requests for more information about the advertised farm products are also monitored.”).

Furthermore, Angles discloses that that the user’s profile is generated and maintained in a demographic database. Ex-1007, 3:18-24 (“A consumer who

wishes to receive customized advertisements first registers with the advertisement provider by entering pertinent demographic information into the advertisement provider's demographic database. The advertisement provider then retains a demographic profile of the consumer. In return, the advertisement provider assigns the consumer a unique member code.”).

Angles also discloses an interaction profile tracking which advertisements are viewed by a specific consumer. *See id.*, 3:66-4:5 (“Another feature of the invention is directed to **monitoring the particular advertisements which are viewed by particular consumers**. With this information, advertisers can pay for advertising directed at specific demographic target groups. Additionally, advertisers may be billed by the advertisement provider based on actual delivery of the advertisements to pertinent consumers.”). Since the consumers can only view the advertisements while accessing an offering, e.g., a game application, a player profile detailing which advertisements were viewed or interacted with is created based on choices the user made during said game application.

Accordingly, Angles discloses “generating a player profile based on said user choices made during said game application.” Ex-1004, ¶¶142-144.

(d) 5[c]: wherein the player profile is specific to said user.

Angles teaches this limitation. Angles discloses assigning a “unique member code” that uniquely identifies a consumer when the consumer's profile is

created. Ex-1007, 3:18-24 (“A consumer who wishes to receive customized advertisements first registers with the advertisement provider by entering pertinent demographic information into the advertisement provider’s demographic database. The advertisement provider then retains a demographic profile of the consumer. In return, the advertisement provider assigns the consumer a unique member code.”).

The consumer unique member code is then used to identify and access the specific profile of the consumer. *Id.*, 8:10-15 (“The advertisement provider computer 18 obtains the consumer member code 22 and uses the consumer’s member code 22 to access the consumer’s profile in a demographic database (not shown). Based on the consumer’s profile, the advertisement provider computer 18 selects an appropriate customized advertisement 30.”).

Accordingly, Angles discloses “the player profile is specific to said user.” Ex-1004, ¶¶145-147.

6. Claim 6: The method of claim 5 wherein said player profile is disseminated to providers of business-related content used in said game application.

Angles teaches this limitation. Angles discloses that the advertising provider computer generates the custom advertisement that is integrated into the interactive communication offering (e.g., on-line games) based on the consumer’s profile. *See* Ex-1007, Abstract, 21:58-60 (“the content provider computer 14 can integrate the customized advertisements 30 into offerings such as **on-line games**”); *see also id.*,

3:56-65 (“The advertisement provider uses the consumer member code to identify the consumer’s demographic profile and preferences. The advertisement provider then selects an appropriate advertisement based on the consumer’s profile and sends the customized advertisement to the consumer computer. The consumer computer then merges the content provider’s electronic document with the advertisement provided by the advertisement provider to create a single displayed document to the consumer.”), 15:20-25 (“The advertising module 62 uses the consumer member code 22 to obtain a consumer profile from the registration database 68. As discussed in more detail below, the advertising module 62 then uses the consumer profile to select an appropriate advertisement from the advertisement database 70.”). As Mr. Crane explained in his declaration, in order for module 62 to provide advertisements customized to a particular user, said user’s demographic information must be sent (disseminated) from the REGISTRATION DATABASE 68 using the consumer member code 22. Using the unique user code, said user’s demographic information is obtained from the database and disseminated to the provider of business-related content. Ex-1004, ¶151.

Accordingly, Angles discloses “said player profile is disseminated to providers of business-related content used in said game application.” *Id.*, ¶¶148-154.

7. Claim 7

- (a) 7[preamble]: A method of automatically integrating content into an electronic device over a computerized network, comprising:**

To the extent the preamble of Claim 7 is limiting, Angles teaches this limitation. *See* § VII.A.2.(a).

Accordingly, Angles discloses “automatically integrating content into an electronic device over a computerized network.” Ex-1004, ¶155.

- (b) 7[a]: receiving a request from a user at a primary electronic device to initiate at least one of a plurality of locally executed applications that are accessible to said primary electronic device interfaced with said network;**

Angles teaches this limitation. Angles discloses providing a plurality of interactive communication offerings (e.g., on-line games) to be accessed by a consumer via a consumer computer. A consumer then “directs one of the consumer computers,” meaning the consumer sends and the computer receives a request from the consumer, “to access an offering existing in one of the content provider computers” *See* Ex-1007, Abstract. A POSITA would understand that when a user “directs” an action (such as accessing an online offering) at a computer, said direction would take the form of a request through, for example, a mouse or keyboard. Thus the “consumer computer 12” would have **received a request from the user** as claimed. Ex-1004, ¶156. *See also* § VII.A.2.(b).

Accordingly, Angles discloses “receiving a request from a user at a primary electronic device to initiate at least one of a plurality of locally executed applications that are accessible to said primary electronic device interfaced with said network.” Ex-1004, ¶156.

(c) 7[b]: initiating said at least one of said plurality of applications at said primary electronic device;

Angles teaches this limitation. *See* § VII.A.2.(c).

Accordingly, Angles discloses “initiating said at least one of said plurality of applications at said primary electronic device.” Ex-1004, ¶157.

(d) 7[c]: providing at least one customized web page at a secondary electronic device, accessed over said computerized network by said primary electronic device, said web page being customized with content for use with said one of said plurality of applications;

Angles teaches this limitation. Angles discloses that an advertising provider computer generates a customized advertisement based on a consumer’s profile. *See* Ex-1007, Abstract. The customized advertisement is then delivered to and accessed by the consumer computer in the form of web pages. Ex-1007, 21:38-44 (“Upon receiving the customized advertisement, the content provider incorporates the customized advertisement 30 into an electronic page 32. The content provider computer 14 then forwards the electronic page 32, combined with the customized advertisement 30 to the consumer computer 12. The consumer computer 12 then

displays the electronic page 32 and customized advertisement 30 to the consumer.”).

See also § VII.A.2.(a).

Accordingly, Angles discloses “providing at least one customized web page at a secondary electronic device, accessed over said computerized network by said primary electronic device, said web page being customized with content for use with said one of said plurality of applications.” Ex-1004, ¶¶158-160.

- (e) **7[d]: automatically integrating said content from said secondary electronic device into said at least one of said plurality of locally executed applications during execution of said at least one of said plurality of applications;**

Angles teaches this limitation. *See* § VII.A.2.(d).

Accordingly, Angles discloses “automatically integrating said content from said secondary electronic device into said at least one of said plurality of locally executed applications during execution of said at least one of said plurality of applications.” Ex-1004, ¶¶161-162.

- (f) **7[e]: automatically re-directing said user to one of said customized web pages at said secondary electronic device, from said primary electronic device, said re-direction being integrated into said one of said plurality of applications and said re-direction occurring as part of the user executing said one of said plurality of applications;**

Angles teaches this limitation. *See* § VII.A.2.(e).

Accordingly, Angles discloses “automatically re-directing said user to one of said customized web pages at said secondary electronic device, from said primary electronic device, said re-direction being integrated into said one of said plurality of applications and said re-direction occurring as part of the user executing said one of said plurality of applications.” Ex-1004, ¶163.

(g) 7[f]: executing a user action on said content from said secondary electronic device, said user action generating a benefit for said user relating to said content.

Angles teaches this limitation. Angles discloses that an advertisement provider tracks a consumer’s response to a customized advertisement generated by the advertisement provider computer and the consumer receives credit each time the consumer views the customized advertisement. Ex-1007, Abstract (“The advertisement provider computer also credits a consumer account, a content provider account and an internet provider account each time a consumer views a custom advertisement. Furthermore, the advertisement provider computer tracks consumer responses to the customized advertisements.”), 16:35-37 (“the preferred embodiment can pay a consumer for viewing advertisements by crediting a consumer’s Internet provider account.”), 21:25-29 (“In other embodiments, the advertising module 62 also credits a consumer’s digital cash account each time the consumer views a customized advertisement 30. The consumer can then use the

digital cash to purchase goods and services offered for sale on the Internet 33.”).

See also § VII.A.2.(f).

Accordingly, Angles discloses “executing a user action on said content from said secondary electronic device, said user action generating a benefit for said user relating to said content.” Ex-1004, ¶¶164-165.

8. Claim 8: The method of claim 7, wherein said content includes dynamic content.

Angles teaches this limitation. *See* § VII.A.4.

Accordingly, Angles discloses “said content includes dynamic content.” Ex-1004, ¶¶166-167.

9. Claim 9

(a) 9[preamble]: The method of claim 7, further comprising:

See § VII.A.7.(a); Ex-1004, ¶¶168-169.

(b) 9[a]: providing a virtual reality platform interfaced with said primary electronic device, said virtual reality platform providing a three-dimensional visualization in which the user interacts.

Angles teaches this limitation. Angles discloses providing a three-dimensional virtual reality environment to the consumer. Ex-1007, 21:55-22:8 (“in addition to integrating the customized advertisements 30 [into] an electronic page 32, the content provider computer 14 can integrate the customized advertisements 30 into offerings such as on-line games, video programming, internet radio, **virtual**

reality environments and the like. ... [T]he content provider computer 14 can integrate the customized advertisements 30 into **three dimensional worlds** defined by the Virtual Reality Modeling Language (VRML 1.0). VRML 1.0 is a draft specification for the design and implementation of a platform[-]independent language for virtual reality scene description. VRML 1.0 was released on May 26, 1995. For instance, **the content provider computer 14 may display a three-dimensional mall, shopping center or city** which displays customized advertisements 30 on virtual reality posters and billboards.”).

Accordingly, Angles discloses “providing a virtual reality platform interfaced with said primary electronic device, said virtual reality platform providing a three-dimensional visualization in which the user interacts.” Ex-1004, ¶¶170-171.

B. Ground 2: Robinson in View of the Knowledge of One of Ordinary Skill in the Art Renders Obvious Challenged Claims 1, 3-9

1. Prior Art

(a) Overview of Robinson (Ex-1008)

Robinson was filed on December 20, 2000, and published on August 22, 2002. Robinson thus qualifies as prior art under 35 U.S.C. § 102(a) and § 102(e)(1) against the '028 Patent. Robinson “relates to computer interfaces, networking, e-commerce, and configurable websites.” Ex-1008, 1:14-15.

FIG. 3 of Robinson, reproduced below, “illustrates a system diagram of the architecture of the 3D computing environment of the present invention.” *Id.*, 2:13-15. As shown by the diagram of FIG. 3, a “local environment” with a 3D desktop 314 is created “at a single computer, manned by a human who connects to the Internet.” *Id.*, 7:7-9. The 3D desktop 314 is “a three-dimensional user interface, allowing the user to navigate their computer's contents with ease.” *Id.*, 7:29-30. In some cases, the “3D Desktop includes a quick-to-download software file that converts the user's conventional 2D desktop into a 3D ‘room’ environment.” *Id.*, 7:35-37. An “e-commerce system 360 takes advantage of key areas of a user's 3D computing desktop environment that are reserved for placing messages and advertisements from commercial clients.” *Id.*, 9:8-11.

Robinson teaches that the “network-enabled 3D computing environment of the present invention has several extensions, including: the introduction of real-time avatars. Avatars are virtual representations of users, allowing them to interact with other users across a network. The ability to create an interactive online community is very powerful. Such a utility would allow for intra- and inter-company meetings, the extension of the online communities which exist today, virtual concerts, online games, etc.” Ex-1008, 9:29-37; Ex-1004, ¶¶87-91.

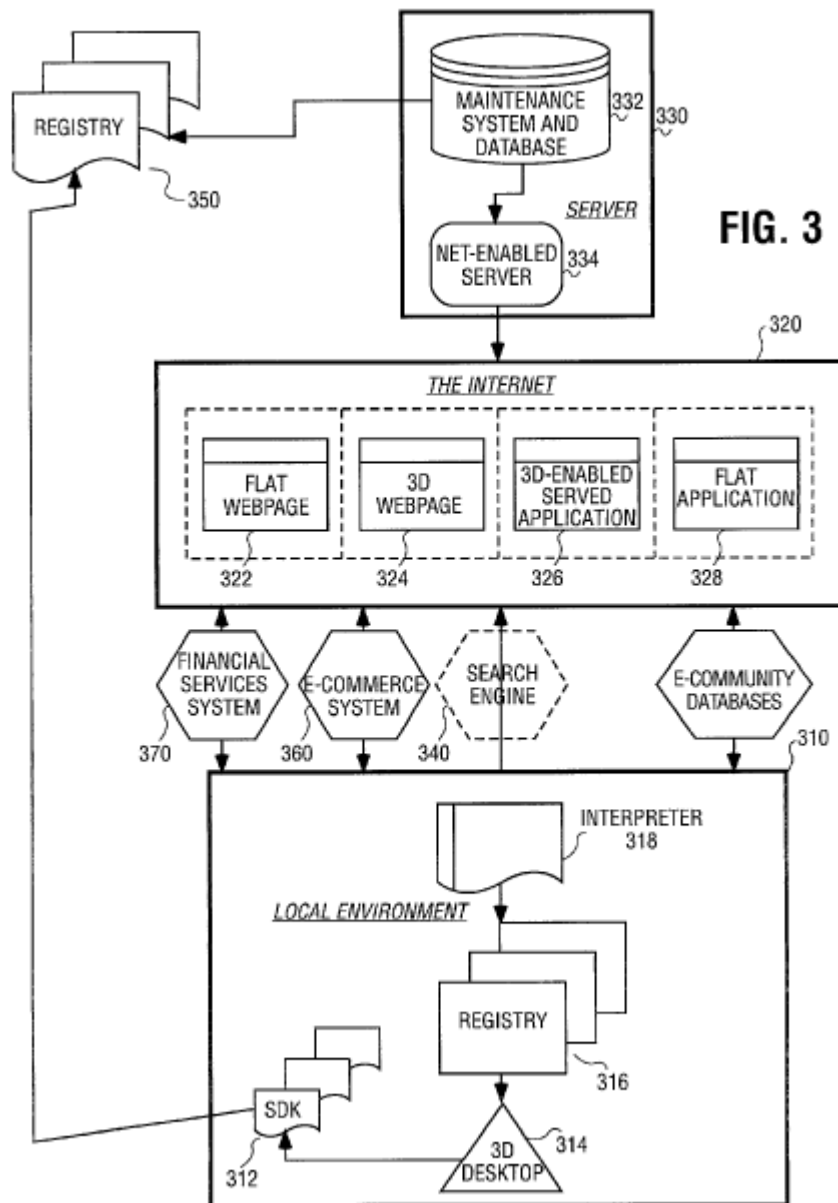


FIG. 4 of Robinson reproduced below further “illustrates the use of the present invention in an e-commerce setting.” Ex-1008, 2:15-16. As shown by the diagram of FIG. 4, a Persistent Client 465 “is automatically installed on the user's desktop environment at client machine 460” (*id.*, 10:28-29), wherein the

“Persistent Client 465 nevertheless remains active in an unobtrusive two-dimensional persistent window on the user's desktop for the delivery of advertisement or messages to the user's desktop. As such, the present invention provides a persistent presence on the user's desktop for the placement of advertising, messages, or the gathering of information about the user. . . .” Ex-1008, 10:42-48); Ex-1004, ¶95.

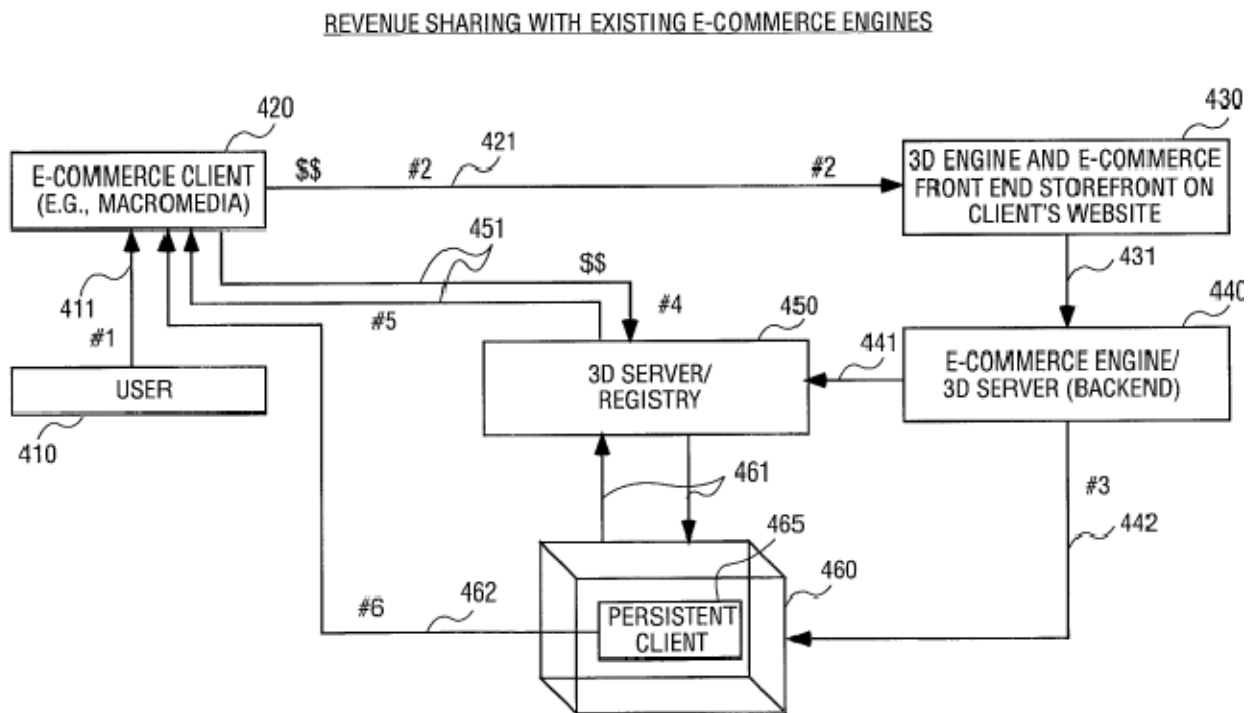
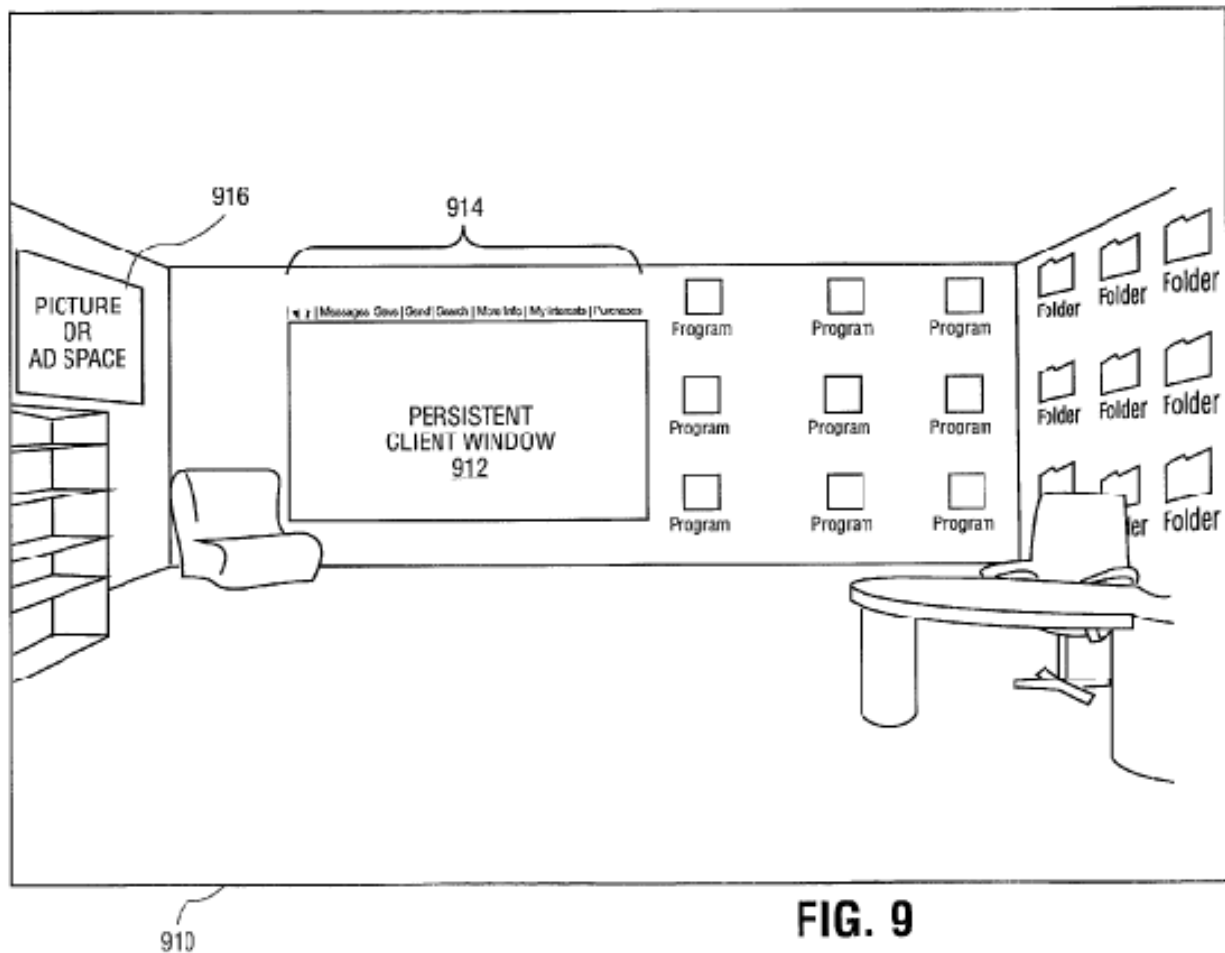


FIG. 4

FIG. 9 of Robinson reproduced below “illustrates one example of a user desktop 910 with a Persistent Client Window 912.” Ex-1008, 14:19-20. “2D or ‘3D/spatial’ advertisements, promotions, or messages” can be placed “in the

Persistent Client Window 912 that, when clicked on by a user/viewer, will activate full or partial-screen interactive 3D virtual reality environment advertisements that can also be equipped with e-commerce capabilities, such as links to product/service ordering websites.” Ex-1008, 15:5-11. “Further, the present invention can be used to embed a similar VR/spatial environment behind a static or dynamic two dimensional (2D) advertisement that is placed in the Persistent Client window 912. For example, a 3D or 2D advertisement may be positioned in the Persistent Client window 912. When this advertisement is selected by a user/viewer clicking on it, the advertisement enlarges into a partial or full-screen VR/spatial environment that the user can move through spatially and take advantage of the media-enriched features of the advertisement.” *Id.*, 15:31-40. “An advertisement may be placed in the Persistent Client Window 912. When a user clicks on the advertisement, the advertisement increases in size to partially or completely fill the screen of the computer monitor. The advertisement may be rendered as a 2D or 3D image. If the advertisement is a 3D VR environment, the user can click onto an avatar section of the advertisement and choose a virtual body (avatar) that will be the identification or representation of the user's presence in the 3D advertisement VR environment. The user can then virtually walk around that advertisement, meet other virtual users who have entered into the collaborative VR advertisement in the same way from their own computer desktops. The virtual

users can converse with each other about the content of the advertisement.” Ex-1008, 15:43-57; Ex-1004, ¶¶92-94, 98-101.



As explained by Mr. Crane in his declaration (Ex-1004, ¶¶172-176), Robinson in view of the knowledge of a POSITA would render Claims 1 and 3-9 of the '028 Patent obvious as detailed by the element-by-element claim analysis below.

2. Claim 1

- (a) **1[preamble]: A method of integrating business-related content over a computerized network, into a primary electronic device that accesses a game application, from at least one secondary electronic device that accesses business-related content on a plurality of web pages, the method comprising:**

To the extent the preamble of Claim 1 is limiting, Robinson teaches this limitation. Robinson discloses a “computer network-based system and method to configure and provide network-enabled three-dimensional computing environments.” Ex-1008, Abstract. As shown by FIG. 3 of Robinson reproduced above, a primary electronic device or a client machine - “a single computer, manned by a human who connects to the Internet” hosts a “user object 310” (*id.*, 7:7-9) in a “local environment,” which is a “network-enabled 3D computing environment” (*id.*, 7:3). A secondary electronic device – a “server object 330 contains everything needed to serve up webpages and/or applications” to the user enabled by the “network-enabled 3D computing environment.” *Id.*, 7:10-13.

Robinson teaches that the network-enabled 3D computing environment has several extensions to support an interactive online community, such as online games. *Id.*, 9:29-37 (“The network-enabled 3D computing environment of the present invention has several extensions, including: the introduction of real-time avatars. Avatars are virtual representations of users, allowing them to interact with

other users across a network. The ability to create an interactive online community is very powerful. Such a utility would allow for intra- and inter-company meetings, the extension of the online communities which exist today, virtual concerts, **online games**, etc.”). In other words, the 3D computing environment can be a locally executed game application. Business-related content such as an advertisement is integrated into the network-enabled 3D computing environment on the client machine. Ex-1008, 9:8-11 (“e-commerce system 360 takes advantage of key areas of a user's 3D computing desktop environment that are reserved for **placing messages and advertisements from commercial clients**”).

Accordingly, Robinson discloses a “method of integrating business-related content over a computerized network, into a primary electronic device that accesses a game application, from at least one secondary electronic device that accesses business-related content on a plurality of web pages.” Ex-1004, ¶¶177-179.

- (b) **1[a]: receiving a request at said primary electronic device to initiate a locally executed game application that is accessible at said primary electronic device, from a user interfaced with said network;**

Robinson teaches this limitation. Robinson discloses that a client machine 460 may receive a request from a user to have a 3D persistent client kernel 465 installed and executed on the client machine 460 as shown in FIG. 4 of Robinson,

reproduced above. The user requested software is downloaded and locally executed at the primary electronic device — said locally executed software being the 3D computing environment that can be configured to play online games (i.e., locally executed game application). Ex-1008, 10:22-29 (“client kernel 465 to the software requested or purchased by user 410. Thus, the **user 410 requested or purchased software** with the appended 3D environment persistent kernel 465 is downloaded to client machine 460 as shown in FIG. 4 by arrows 431 and 442. When user 410 installs the downloaded software on client machine 460, the persistent 3D kernel is automatically installed on the user’s desktop environment at client machine 460.”). As discussed above, the 3D persistent client kernel 465 can support a game application in a 3D computing desktop environment.

Accordingly, Robinson discloses “receiving a request at said primary electronic device to initiate a locally executed game application that is accessible at said primary electronic device, from a user interfaced with said network.” Ex-1004, ¶¶180-182.

(c) 1[b]: initiating said game application at said primary electronic device;

Robinson teaches this limitation. Robinson discloses that, once the 3D persistent client kernel 465 is downloaded and installed on the client machine 460, the 3D persistent client kernel 465 may be activated on the client machine 460 to

initiate and create a 3D computing environment (which can be a game application) locally on the client machine. Ex-1008, 10:36-41 (“Upon automatic installation of the 3D Persistent Client kernel 465, the user is given a demonstration of the 3D environment software and given the choice to activate a full three-dimensional computing environment on the user's desktop at client machine 460.”).

Accordingly, Robinson discloses “initiating said game application at said primary electronic device.” Ex-1004, ¶¶183-185.

- (d) **1[c]: automatically integrating business-related content from at least one of said web pages of said secondary electronic device into said locally executed game application during execution of said game application;**

Robinson teaches this limitation. Robinson discloses that business-related content, e.g., advertisements, can be transferred from a server to a client machine/computer of the user. Ex-1008, 12:59-62 (“When the user logs onto an intranet or internet system, the present invention will go to a **server that contains advertisements or messages** that can be downloaded and buffered onto the user's computer.”), 14:5-9 (“When the user logs online, the present invention **retrieves additional advertisements and messages from a server** and stores them in buffer for the present and future cycling or display of those advertisements or messages in the Persistent Client Window to the user.”).

As disclosed by Robinson and understood by a POSITA (*see* Ex-1004,

¶187), a server “contains everything needed to serve up webpages and/or applications to the network-enabled 3D computing environment-enabled user.” Ex-1008, 7:11-13. The business-related content retrieved from the server in Robinson is then automatically integrated/displayed within a Persistent Client Window on the client machine to the user⁴. *Id.*, 12:62-66 (“The computer will periodically display a different advertisement or message within the Persistent Client Window per a predefined cycling period for rotating the advertisements or messages that are being displayed.”), 13:5-11 (“In this way, when the user first turns the computer on, the computer will **automatically display an advertisement** or message in the Persistent Client Window and it will periodically display other advertisements or messages to the user as long as the Persistent Client Window can be displayed or **while the enter desktop is being displayed.**”).

FIG. 9 of Robinson reproduced above “illustrates one example of a user desktop 910 with a Persistent Client Window 912” (*id.*, 14:19-20) of the client desktop environment 910 (e.g., the locally executed game application) using a

⁴ As discussed in footnote 3 above, the PTAB determined in its decision on the appeal filed by the Applicant during the prosecution of the '028 Patent that if “integration ... is effected by physical operation of the user,” it “is thus not automatic.” Ex-1003, p. 33.

window within the desktop window, where “[a]dvertisements, messages, pictures, video and other information or data” can be presented “within the Persistent Client Window 912” (Ex-1008, 15:1-3).

Accordingly, Robinson discloses “automatically integrating business-related content from at least one of said web pages of said secondary electronic device into said locally executed game application during execution of said game application.” Ex-1004, ¶¶186-189.

- (e) **1[d]: automatically re-directing said user to one of said web pages of said secondary electronic device from said primary electronic device, said re-direction being integrated into said game application and said re-direction occurring as part of the user executing said game application; and**

Robinson teaches this limitation. Robinson discloses that a user is re-directed to an external website when the user clicks a link embedded in the advertisement presented in the Persistent Client Window while the user browses through the persistent client desktop environment 910. Ex-1008, 15:5-11 (“The present invention includes functionality to place 2D or ‘3D/spatial’ advertisements, promotions, or messages in the Persistent Client Window 912 that, when clicked on by a user/viewer, will activate full or partial-screen interactive 3D virtual reality environment advertisements that can also be equipped with e-commerce capabilities, such as links to product/service ordering websites.”), 15:31-40

(“Further, the present invention can be used to embed a similar VR/spatial environment behind a static or dynamic two dimensional (2D) advertisement that is placed in the Persistent Client window 912. For example, a 3D or 2D advertisement may be positioned in the Persistent Client window 912. When this advertisement is selected by a user/viewer clicking on it, the advertisement enlarges into a partial or full-screen VR/spatial environment that the user can move through spatially and take advantage of the media-enriched features of the advertisement.”).

The user may also drag and drop an advertisement to a region of the persistent client desktop environment 910 for re-directing to an external website. Ex-1008, 15:1-4 (“Advertisements, messages, pictures, video and other information or data contained within the Persistent Client Window 912 can be moved to the desktop and vice versa through conventional drag-and-drop procedures”), 15:11-25 (“As shown in FIG. 9, a portion 916 of the persistent client desktop environment 910 is allocated for the positioning of 2D or 3D advertisements, pictures, promotions, or messages. In a configuration mode, a user can use conventional drag & drop user interface techniques to position a desired advertisement in region 916. Subsequently, a user/viewer can view the advertisement in region 916 and select a portion of the advertisement or a related link by clicking on a portion of region 916 using a conventional mouse. Upon

selection of the region 916, an expanded view of the advertisement is presented.

Upon activation of a related link provided within region 916, the user is taken to a related website where an e-commerce transaction corresponding to the advertisement may be initiated.”).

Accordingly, Robinson discloses “automatically re-directing said user to one of said web pages of said secondary electronic device from said primary electronic device, said re-direction being integrated into said game application and said re-direction occurring as part of the user executing said game application.” Ex-1004, ¶¶190-191.

(f) 1[e]: executing a user action on said business-related content from said secondary electronic device.

Robinson teaches this limitation. As discussed in the section above, Robinson discloses that the user may move an advertisement from the Persistent Client Window 912 to the region 916 and click “on a portion of region 916 using a conventional mouse.” *See* § VII.B.2.(e); *see also* Ex-1008, 15:26-31 (“The present invention provides this virtual reality (VR) environment for a client, who can use the ‘drag and drop’, easy-to-configure nature of the environment provided by the present invention to allow users on their website to customize a spatial environment with a new line of products they had created for the environment.”).

Accordingly, Robinson discloses “executing a user action on said business-

related content from said secondary electronic device.” Ex-1004, ¶¶192-194.

3. Claim 3: The method of claim 1 wherein said game application displays branded business-related content to said user.

Robinson teaches this limitation. When discussing “scenarios” that “illustrate the application of the present invention to real-world situations” (Ex-1008, 6:2-4), Robinson discloses that “logo branding and advertisements” can be displayed “within the doll house” for a “toy company” under “Scenario Three” (*id.*, 6:44, 54-56). Robinson also discloses that “the present invention can provide advertisers a means to extend their ‘stickiness’ and branding” (*id.*, 16:30-31) and the use of avatars in the 3D user interface environment “enables one to capitalize on the use of recognizable characters (i.e. corporate mascots) to 1) enrich the user's experience and 2) reinforce the message of the advertiser through further branding” (*id.*, 17:14-17).

Accordingly, Robinson discloses “said game application displays branded business-related content to said user.” Ex-1004, ¶¶195-200.

4. Claim 4: The method of claim 3 wherein said branded business-related content is dynamically updated.

Robinson teaches this limitation. Robinson discloses that the advertisement presented in the Persistent Client Window is periodically updated/rotated. Ex-1008, 12:62-66 (“The computer will periodically display a different advertisement

or message within the Persistent Client Window per a predefined cycling period for rotating the advertisements or messages that are being displayed.”), 13:5-11 (“when the user first turns the computer on, the computer will automatically display an advertisement or message in the Persistent Client Window and it will periodically display other advertisements or messages to the user as long as the Persistent Client Window can be displayed or while the enter desktop is being displayed.”).

Accordingly, Robinson discloses “said branded business-related content is dynamically updated.” Ex-1004, ¶¶201-203.

5. Claim 5

- (a) 5[preamble]: The method of claim 1, comprising the further steps of:**

See § VII.B.2.(a); Ex-1004, ¶¶204-205.

- (b) 5[a]: executing game-related user actions in said game application as a result of user choices;**

Robinson teaches this limitation. *See* § VII.B.2.(c).

Accordingly, Robinson discloses “executing game-related user actions in said game application as a result of user choices.” Ex-1004, ¶206.

- (c) 5[b]: generating a player profile based on said user choices made during said game application;**

Robinson teaches this limitation. A POSITA would have recognized that the 3D environment taught by Robinson could be a **game application**. Ex-1004, ¶208.

Robinson discloses using data of user interactions in the 3D environment, e.g., user choices made during a game application, “for profiling user preferences and in focused marketing.” Ex-1008, 6:38-42 (“**User interactions** within the room can also be **tracked** including how long they visited the space, what they looked at and for how long. This data can then be used for **profiling user preferences** and in focused marketing.”). Robinson teaches that “client information such as profiles, buying patterns, searches, etc.” may be obtained by the Persistent Client kernel and “retained in the registry of 3D server 550. This user information retained in the registry of 3D server 550 may be accessed and used by the e-community database provider 520 via interface 551. In this manner, e-community database provider 520 may employ targeted advertising, targeted information publications, links, or other information particularly relevant to individual client machines 560.” *Id.*, 11:55-64.

Accordingly, Robinson discloses “generating a player profile based on said user choices made during said game application.” Ex-1004, ¶¶207-208.

(d) 5[c]: wherein the player profile is specific to said user.

Robinson teaches this limitation. Robinson discloses that information such as profiles, buying patterns, searches, etc. “can be used for focused searching and targeted advertising **specific for a particular user.**” Ex-1008, 12:51-52.

Accordingly, Robinson discloses “the player profile is specific to said user.” Ex-1004, ¶¶209-210.

6. Claim 6: The method of claim 5 wherein said player profile is disseminated to providers of business-related content used in said game application.

Robinson teaches this limitation. Robinson discloses analyzing user's profile information for "targeted advertising." Ex-1008, 11:61-64 ("In this manner, e-community database provider 520 may employ targeted advertising, targeted information publications, links, or other information particularly relevant to individual client machines 560."). A POSITA would understand that, for an e-community database provider to employ information for the purpose of targeted marketing, said profile information must necessarily be **disseminated to providers of business-related content**. Ex-1004, ¶213.

See also § VII.B.5.(c) and (d).

Accordingly, Robinson discloses "said player profile is disseminated to providers of business-related content used in said game application." Ex-1004, ¶¶211-214.

7. Claim 7

(a) 7[preamble]: A method of automatically integrating content into an electronic device over a computerized network, comprising:

To the extent the preamble of Claim 7 is limiting, Robinson teaches this limitation. *See* § VII.B.2.(a).

Accordingly, Robinson discloses "automatically integrating content into an

electronic device over a computerized network.” Ex-1004, ¶215.

- (b) 7[a]: receiving a request from a user at a primary electronic device to initiate at least one of a plurality of locally executed applications that are accessible to said primary electronic device interfaced with said network;**

Robinson teaches this limitation. Robinson discloses providing a “network-enabled 3D computing environment” on the client computer “to allow the user to connect to the Internet, and view it as a series of three-dimensional objects, some of which will be represented as two-dimensional (or ‘flat’) interfaces.” Ex-1008, 7:31-35. For example, “[t]he 3D computing environment concept of the present invention employing a three-dimensional user interface allows for extrapolation into the possibilities of networked ‘rooms.’” *Id.*, 6:62-65.

See also § VII.B.2.(b).

Accordingly, Robinson discloses “receiving a request from a user at a primary electronic device to initiate at least one of a plurality of locally executed applications that are accessible to said primary electronic device interfaced with said network.” Ex-1004, ¶216.

- (c) 7[b]: initiating said at least one of said plurality of applications at said primary electronic device;**

Robinson teaches this limitation. *See* § VII.B.2.(c).

Accordingly, Robinson discloses “initiating said at least one of said plurality

of applications at said primary electronic device.” Ex-1004, ¶217.

- (d) **7[c]: providing at least one customized web page at a secondary electronic device, accessed over said computerized network by said primary electronic device, said web page being customized with content for use with said one of said plurality of applications;**

Robinson teaches this limitation. Robinson discloses providing to a user customized “multi-user VR advertisement environments described herein” that can be applied to “advertisement areas in **websites**, portals, search engines results and other pages displayed on intranet and internet environments.” Ex-1008, 16:55-59.

Specifically, Robinson discloses “the ability for users to leave the ‘communal’ nature of an interactive multi-user VR advertisement environment to **customize** a ‘private’ or ‘user-customized’ version of the VR advertisement environment on their own desktop. For example, the advertisement sponsor may have objects, textures or colors in a toolbar or other section of the advertisement that the user can drag and drop to **customize** that VR advertisement environment.” Ex-1008, 16:34-42. “The user can jump back into the ‘communal’ VR advertisement environment to interact with others, wherein any **customization** of that communal environment is controlled by the advertisement sponsor or its representatives.” *Id.*, 16:42-45. “A user can also invite others to leave that ‘communal’ environment and come into his/her own ‘individually-**customized**’ version of the VR advertisement environment and that user can control who can

enter that personal/individually-**customized** environment.” *Id.*, 16:49-53.

See also § VII.B.2.(a).

Accordingly, Robinson discloses “providing at least one customized web page at a secondary electronic device, accessed over said computerized network by said primary electronic device, said web page being customized with content for use with said one of said plurality of applications.” Ex-1004, ¶¶218-222.

- (e) **7[d]: automatically integrating said content from said secondary electronic device into said at least one of said plurality of locally executed applications during execution of said at least one of said plurality of applications;**

Robinson teaches this limitation. *See* § VII.B.2.(d).

Accordingly, Robinson discloses “automatically integrating said content from said secondary electronic device into said at least one of said plurality of locally executed applications during execution of said at least one of said plurality of applications.” Ex-1004, ¶223.

- (f) **7[e]: automatically re-directing said user to one of said customized web pages at said secondary electronic device, from said primary electronic device, said re-direction being integrated into said one of said plurality of applications and said re-direction occurring as part of the user executing said one of said plurality of applications;**

Robinson teaches this limitation. *See* § VII.B.2.(e).

Accordingly, Robinson discloses “automatically re-directing said user to one

of said customized web pages at said secondary electronic device, from said primary electronic device, said re-direction being integrated into said one of said plurality of applications and said re-direction occurring as part of the user executing said one of said plurality of applications.” Ex-1004, ¶224.

(g) **7[f]: executing a user action on said content from said secondary electronic device, said user action generating a benefit for said user relating to said content.**

Robinson teaches this limitation. According to the '028 Patent, “[s]ome of the benefits are for internal use within the game while other benefits are external to the game for later use with the various businesses providing the business-related content.” Ex-1001, 1:58-61. Robinson discloses that user action on the advertisement displayed in the Persistent Client Window 912 provides the user with a benefit, e.g., an **easier way to purchase the related products** via a toolbar. Ex-1008, 14:21-67 (“The Persistent Client Window 912 includes a toolbar 914 at the top, which lists features that the user can use to interact with or through the Persistent Client 565. Clicking on these items enable the features such as those that are described below: ... PURCHASE: The ability to initiate **purchase of whatever is being displayed** in the Persistent Client Window 912.”). As Mr. Crane explained in his declaration, a user can also obtain valuable testimonial benefit through the user action of chatting with other consumers. *See id.*, 15:62-16:4; Ex-

1004, ¶227.

See also § VII.B.2.(f).

Accordingly, Robinson discloses “executing a user action on said content from said secondary electronic device, said user action generating a benefit for said user relating to said content.” Ex-1004, ¶¶225-228.

8. Claim 8: The method of claim 7, wherein said content includes dynamic content.

Robinson teaches this limitation. *See* § VII.B.4.

Accordingly, Robinson discloses “said content includes dynamic content.” Ex-1004, ¶¶229-230.

9. Claim 9

(a) 9[preamble]: The method of claim 7, further comprising:

See § VII.B.7.(a); Ex-1004, ¶¶231-232.

(b) 9[a]: providing a virtual reality platform interfaced with said primary electronic device, said virtual reality platform providing a three-dimensional visualization in which the user interacts.

Robinson teaches this limitation. Robinson discloses an interactive 3D virtual reality environment in the Persistent Client Window 912. Ex-1008, 15:5-11 (“The present invention includes functionality to place 2D or ‘3D/spatial’ advertisements, promotions, or messages in the Persistent Client Window 912 that, **when clicked on by a user/viewer, will activate full or partial-screen**

interactive 3D virtual reality environment advertisements that can also be equipped with e-commerce capabilities, such as links to product/service ordering websites.”). Such virtual reality environment also enables the client to “use the ‘drag and drop’, easy-to-configure nature of the environment provided by the present invention to allow users on their website to customize a spatial environment with a new line of products they had created for the environment. Further, the present invention can be used to embed a similar VR/spatial environment behind a static or dynamic two dimensional (2D) advertisement that is placed in the Persistent Client window 912.” *Id.*, 15:27-34.

Accordingly, Angles discloses “providing a virtual reality platform interfaced with said primary electronic device, said virtual reality platform providing a three-dimensional visualization in which the user interacts.” Ex-1004, ¶¶233-235.

C. Ground 3: Angles, Robinson, and Ginter, in View of the Knowledge of One of Ordinary Skill in the Art, Renders Obvious Challenged Claim 6

1. Prior Art

(a) Overview of Ginter (Ex-1009)

Ginter claims priority to an application filed on February 13, 1995 and was issued on September 7, 1999 and thus qualifies as prior art under at least pre-AIA 35 U.S.C. § 102(a) and § 102(b) because Ginter was patented more than one year

prior to the effective filing date of the '028 Patent. Ginter was not cited or applied by the Examiner during the '028 Patent prosecution.

Ginter relates to “systems and methods for secure transaction management and electronic rights protection.” Ex-1009, Abstract. Ginter describes “[e]lectronic appliances such as computers equipped in accordance with the present invention help to ensure that information is accessed and used only in authorized ways, and maintain the integrity, availability, and/or confidentiality of the information.” *Id.* “Such electronic appliances provide a distributed virtual distribution environment (VDE) that may enforce a secure chain of handling and control, for example, to control and/or meter or otherwise monitor use of electronically stored or disseminated information.” *Id.* Among the information handled by Ginter’s systems and methods is “user profile.” Ex-1009, 36:10-43.

(b) Motivation to Combine

A POSITA would have found it obvious and been motivated to combine the teachings of Ginter with Angles and/or Robinson to arrive at the claimed subject matter. As already discussed above, Angles and Robinson relate to systems and methods for providing advertising in virtual or on-line environments with which a user can interact. *See e.g.*, Ex-1007, Abstract, 21:34-22:8; Ex-1008, Abstract, 5:29-6:58. Angles and Robinson also describe generating and maintaining user profiles, which can be used to direct targeted advertising to users. Ex-1007, Abstract; Ex-

1008, 10:44-67. Ginter describes disseminating information, such as user profiles, in a secure manner. Ex-1009, Abstract; Ex-1004, ¶236.

A POSITA would have been motivated to modify Angles' and/or Robinson's system to employ Ginter's techniques, including the secure dissemination of user profiles, because doing so would allow the user profiles to be leveraged by more than just one advertiser for targeted advertising. Ex-1004, ¶¶237-238. Such a modification would have been the mere application of a known technique to a piece of prior art ready for improvement. *Id.*

2. Claim 6: The method of claim 5 wherein said player profile is disseminated to providers of business-related content used in said game application.

As discussed above, Angles and Robinson teach a "player profile" generated based on actions made during a "game application." Angles and Robinson also disclose "business-related content" in the form of customized advertisements.

Ginter teaches or suggests that the "player profile is disseminated" in that it describes "electronic appliances [that] provide a distributed virtual distribution environment (VDE) that may enforce a secure chain of handling and control, for example, to control and/or meter or otherwise monitor use of electronically stored or **disseminated information**," where such information includes "user profile." Ex-1009, Abstract, 36:10-43.

As such, Ginter, in combination with Angles and/or Robinson, disclose or teach “said player profile is disseminated to providers of business-related content used in said game application” in that POSITA would have been motivated to modify Angles’ and/or Robinson’s system to employ Ginter’s technique of dissemination user profiles, because doing so would allow the user profiles to be leveraged by more than just one advertiser for targeted advertising. Ex-1004, ¶¶236-238.

VIII. DISCRETIONARY CONSIDERATIONS

A. Considerations under 35 U.S.C. § 325(d)

This Petition does not present a scenario in which the “same or substantially the same prior art or arguments previously were presented to the Office.” 35 U.S.C. § 325(d). None of the references relied upon in this Petition has been before the Examiner in connection with the Challenged Claims of the ’028 Patent.

B. Considerations under 35 U.S.C. § 314(a)

Denial under 35 U.S.C. §314(a) is not warranted, as the application of the factors in *General Plastic Industrial Co., Ltd. v. Canon Kabushiki Kaisha* to the present circumstances demonstrates that the filing of the instant Petition is not abusive, that none of the Patent Owner, the PTO, or the Board has addressed the merits of the grounds in this Petition, and instituting the present proceeding is an efficient use of the Board’s resources. *See* IPR2016-01357 (PTAB Sept. 6, 2017)

(precedential). Petitioner (or any RPI or anyone else) has not challenged the '028 Patent in a prior IPR petition.

Moreover, the Petition should not be denied under the discretionary factors set out in *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11, at 6 (PTAB March 20, 2020) (“*Fintiv*”). Petitioner addresses each of those factors below:

1. Whether the court granted a stay or evidence exists that one may be granted if a proceeding is instituted – No stay pending IPR has been requested by any party in the Related Matter between Patent Owner and Petitioner in the Western District of Texas. Given that a motion to stay has not yet been filed in the Related Matter depending on the outcome of the current IPR proceeding, the Board should not infer or speculate on what the outcome of such a motion would be in determining whether to institute the requested IPR. *Sand Revolution II LLC v. Cont’l Intermodal Group-Trucking LLC*, IPR2019-01393, Paper 24 at 7 (PTAB June 16, 2020); *Dish Network LLC v. Broadband iTV, Inc.*, IPR2020-01359, Paper 15 at 11 (PTAB Feb. 12, 2021). Thus, this factor is neutral on discretionary denial.

2. Proximity of the court’s trial date to the Board’s projected statutory deadline for a final written decision – Pursuant to 35 U.S.C. § 316(a)(11), a Final Written Decision in this proceeding would issue 12 months

from the institution decision, which is approximately 6 months from the filing date of the Petition. As of the filing of this Petition, the Related Matter in the Western District of Texas is at an early stage: fact discovery in the case has only just begun and no Markman hearing has been held. As the Amended Scheduling Order (Ex-1010) indicates, a trial will not happen in the Related Matter until April 2024, at the earliest. Indeed, district court trial dates shift even in normal times, much less when dealing with the voluminous patent case load accumulated during the Covid-19 pandemic. *Mylan Pharma. Inc. v. Sanofi-Aventis Deutschland GMBH*, IPR2018-01680, Paper 22 at 17 (PTAB Apr. 3, 2019). It is thus improper to assume that the district court will stick to the current trial schedule and it is not clear whether a trial in the Related Matter will occur before the date on which a Final Written Decision in this proceeding would be expected.

Further, Petitioner has moved to transfer the Related Matter from Waco to Austin. If the transfer motion is granted, the trial date is likely to move further out. Petitioner has filed a motion to stay the Related Matter pending disposition of the transfer motion, which could also delay the trial date.

Moreover, given the potential length of the trial, the likelihood of post-trial motions, the pending motion to transfer, and the possibility that trial proceedings may be further delayed due to the case load caused by the Covid-19 pandemic, the likelihood is that the trial court proceeding in the Related Matter would not be

completed until at or around the same time that a Final Written Decision would be due in this IPR. *Fintiv* states that this factor does not implicate the decision whether to institute “if the trial date is at or around the same time as the projected statutory deadline.” IPR2020-00019, Paper 11, at 6. Thus, this factor does not support discretionary denial.

3. Investment in the parallel proceeding by the court and the parties

– As discussed above, the Related Matter is in an early stage and the court has not issued any substantive ruling relating to the ’028 Patent. Further, while the Markman hearing is scheduled for September 1, 2023, the claim construction will have little bearing on this proceeding since the Petitioner does not propose any claim terms for construction in this IPR proceeding. As such, this factor weighs against discretionary denial.

4. Overlap between issues raised in the Petition and in the

parallel proceedings – Instituting an IPR proceeding will allow the Board to address the prior art, and the issues will be narrowed in the Related Matter due to the estoppel provisions of 35 U.S.C. § 315(e)(2). To reduce overlap further, if the Board institutes IPR in this proceeding, Petitioner will cease asserting in the Related Matter the prior art for the claims on which the IPR is instituted. *See Sand Revolution II*, IPR2019- 01393, Paper 24 at 11-12 (PTAB June 16, 2020) (holding

a similar stipulation weighs against discretionary denial); *Apple Inc. v. Maxell, Ltd.*, IPR2020-00204, Paper 11 at 15-17 (PTAB June 19, 2020) (same). The most efficient course is for the Board to address the issues before it in this Petition, and the district court to address only the issues that would remain. This factor weighs against discretionary denial.

5. Whether the Petitioner and the defendant in the parallel proceeding are the same party – Petitioner is a defendant in the Related Matter filed by the plaintiff Patent Owner. This factor weighs against discretionary denial.

6. Other circumstances that impact the Board's exercise of discretion, including the merits – As previously noted, neither the Petitioner nor anyone else has ever challenged the '028 Patent in a PTAB post-issuance proceeding. Further, as discussed in detail above, the prior art references set forth in Grounds 1-2 demonstrate that the Challenged Claims 1 and 3-9 are unpatentable as obvious. Given the strength of the challenge to patentability presented in this Petition, denying this petition under § 314(a) would be unfairly prejudicial to Petitioner, and this factor weighs against discretionary denial. *See Sand Revolution II*, IPR2019-01393, Paper 24 at 13; *Apple*, IPR2020-00204, Paper 11 at 17-19.

As such, this Petition should not be denied on discretionary factors.

IX. CONCLUSION

For the reasons set forth above, Petitioner has established a reasonable likelihood of prevailing with respect to all Challenged Claims of the '028 Patent and requests the Board institute *inter partes* review and then cancel all Challenged Claims as unpatentable.

Dated: May 25, 2023

Respectfully submitted,

/David T. Xue/

David T. Xue

Reg. No. 54,554

david@kxtlaw.com

Karineh Khachatourian

karinehk@kxtlaw.com

KXT LAW, LLP

1775 Woodside Road, Suite 204

Redwood City, California 94061

Tel: 650-239-0420

Fax: 650-249-5013

Attorneys for Petitioner, Sony Interactive
Entertainment LLC

CERTIFICATION UNDER 37 C.F.R. §42.24

Pursuant to 37 C.F.R. § 42.24, the undersigned certifies that the foregoing Petition for *Inter Partes* Review contains 13,228 words excluding a table of contents, a table of authorities, Mandatory Notices under § 42.8, a certificate of service or word count, or appendix of exhibits or claim listing. Petitioner has relied on the word count feature of the word processing system used to create this paper in making this certification.

Dated: May 25, 2023

/David T. Xue/

David T. Xue

Reg. No. 54,554

david@kxtlaw.com

Karineh Khachatourian

karinehk@kxtlaw.com

KXT LAW, LLP

1775 Woodside Road, Suite 204

Redwood City, California 94061

Tel: 650-239-0420

Fax: 650-249-5013

CERTIFICATE OF SERVICE

The undersigned certifies pursuant to 37 C.F.R. § 42.6(e) and § 42.105 that on May 25, 2023, a true and correct copy of the **PETITION FOR INTER PARTES REVIEW OF U.S. PATENT NO. 8,458,028**, including exhibits were served via express mail on the Patent Owner at the following correspondence address of record:

Edwards Neils LLC
380 Maple Street, #8126
Gallatin, TN 37066

A courtesy copy was sent to Patent Owner's litigation counsel via electronic mail:

Jordan A. Sigale
jsigale@dunlapcoddington.com
Julie Langdon
jlangdon@dunlapcoddington.com
DUNLAP CODDINGTON PC
225 West Washington St., Ste. 2200
Chicago, IL 60606
Tel: 312.651.6744

Douglas J. Sorocco
dsorocco@dunlapcoddington.com
Evan Talley
etalley@dunlapcoddington.com
DUNLAP CODDINGTON PC
609 West Sheridan Avenue
Oklahoma City, OK 73102
Tel: 405.607.8600

Erick S. Robinson
Patrick M. Dunn
SPENCER FANE LLP
816 Congress Avenue, Suite 1200
Austin, TX 78701
erobinson@spencerfane.com
pdunn@spencerfane.com
Tel: 512.840.4550

Dated: May 25, 2023

/David T. Xue/

David T. Xue
Reg. No. 54,554
david@kxtlaw.com
Karineh Khachatourian
karinehk@kxtlaw.com
KXT LAW, LLP
1775 Woodside Road, Suite 204
Redwood City, California 94061
Tel: 650-239-0420
Fax: 650-249-5013