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Paper 11
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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC., EVENTBRITE INC.,
STARWOOD HOTELS & RESORTS
WORLDWIDE, INC., ET AL.
Petitioner,

v.

AMERANTH, INC.,
Patent Owner.

Case CBM2015-00081 (Patent 8,146,077 B2)
Case CBM2015-00095 (Patent 8,146,077 B2)

Before MEREDITH C. PETRAVICK, RICHARD E. RICE, and STACEY G. WHITE, *Administrative Patent Judges*.

RICE, *Administrative Patent Judge*.

DECISION
Denying Institution of Covered Business Method Patent Review
37 C.F.R. § 42.208

I. INTRODUCTION

Apple Inc., Eventbrite Inc., and Starwood Hotels & Resorts Worldwide, Inc. (collectively, the "First Petitioner") and Expedia, Inc., Fandango, LLC, Hotels.com, L.P., Hotel Tonight, Inc., Hotwire, Inc., Kayak Software Crop., Opentable, Inc., Orbitz, LLC, Papa John's USA, Inc., Stubhub, Inc., Ticketmaster, LLC, Live Nation Entertainment, Inc.,Travelocity.com LP, Wanderspot LLC, Agilysys, Inc., Domino's Pizza, Inc., Domino's Pizza, LLC, Hilton Resorts Corporation, Hilton Worldwide, Inc., Hilton International Co., Mobo Systems, Inc., Pizza Hut of America, Inc., Pizza Hut, Inc., and Usablenet, Inc. (collectively, the "Second Petitioner") (the First Petitioner and the Second Petitioner, collectively, being referred to herein as the "Petitioner") filed related petitions requesting covered business method review of U.S. Patent No. 8,146,077 B2 (Ex. 1004,[1] "the '077 Patent") on the same grounds. *See* CBM2015-00081, Paper 1 ("Pet."), 1, 9; CBM2015-00095, Paper 2, 1, 8. Ameranth, Inc. ("Patent Owner") filed a Preliminary Response (Paper 9, "Prelim. Resp."). Given the overlap in the asserted grounds of unpatentability, we issue one Decision for both CBM2015-00081 and CBM2015-00095.

We have jurisdiction under 35 U.S.C. § 324, which provides that a post-grant review may not be instituted "unless . . . it is more likely than not

[1] Unless otherwise noted, citations will be to CBM2015-00081.

that at least 1 of the claims challenged in the petition is unpatentable." 35 U.S.C. § 324(a). [2]

Petitioner challenges the patentability of claims 1–18 of the '077 Patent under 35 U.S.C. §§ 103 and 112.[3] *See* Pet. 9. For the reasons given, we conclude that the information presented in the Petition does not establish that at least one of the challenged claims is more likely than not unpatentable.

A. Related Matters

Section 18(a)(1)(B) of the AIA limits the filing of a petition for covered business method review to persons or their privies who have been sued or charged with infringement of a covered business method patent. There is no dispute that Petitioner has been sued for infringement of the '077 Patent. *See* Pet. 2–4; Paper 7, 5–6. We are informed of the following additional related matters: CBM2014-00013, CBM2014-00014, CBM2014-00015, CBM2014-00016, CBM2015-00080, CBM2015-00082, CBM2015-00091, CBM2015-00096, CBM2015-00097, and CBM2015-00099. *See* Pet. 2; Paper 7, 6.[4]

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[2] *See* § 18(a) of the Leahy-Smith America Invents Act ("AIA"), Pub. L. No. 112-29, 125 Stat. 284, 329 (2011).

[3] The reference to section 102 on page 21 of the Petition appears to be a clerical error. Pet. 21.

[4] CBM2014-00013, CBM2014-00014, CBM2014-00015, and CBM2014-00016 are no longer pending.

B. The '077 Patent

The '077 Patent, titled "Information Management and Synchronous Communications System with Menu Generation, and Handwriting and Voice Modification of Orders," states that an inherent problem of personal digital assistant ("PDA") devices is that the small size of their displays limits the amount of information that may be displayed at any one time. Ex. 1004, 1:54–62. PDAs have not been "quickly assimilated into the restaurant and hospitality industries," according to the Patent, because "their small display sizes are not readily amenable to display of menus as they are commonly printed on paper or displayed on, e.g., large, color desktop computer screens." *Id.* at 2:12–17. A principal object of the '077 Patent "is to provide an improved information management and synchronous communications system and method which facilitates . . . generation of computerized menus for restaurants and other applications that utilize equipment with non-PC-standard graphical formats, display sizes and/or applications." *Id.* at 2:61–67.

The Specification of the '077 Patent describes a procedure for configuring a menu on a desktop computer and then downloading the menu configuration onto a point of sale ("POS") interface on a handheld device. Ex. 1004, 7:44–47. The procedure comprises the following steps:

1. Add Modifiers;
2. Add Sub-Modifiers and link them to the Modifiers;
3. Create Menu categories;
4. Add menu items to the categories;
5. Assign Modifiers to the menu items;
6. Preview the menu on the POS emulator on the desktop PC;

7. Download the menu database to the handheld device.

Id. at 8:28–36. "[M]enu items are stored using a tree metaphor similar to how files are stored on a PC with folders and subfolders." *Id.* at 8:4–6.

In the preferred embodiment, a "synchronous communications control module . . . . provides a single point of entry for all hospitality applications to communicate with one another wirelessly or over the Web." Ex. 1004, 12:39–42. "The single point of entry works to keep all wireless handheld devices and linked Web sites in synch with the backoffice server (central database)," such that, for example, "a reservation made online is automatically communicated to the backoffice server which then synchronizes with all the wireless handheld devices wirelessly." *Id.* at 12:47–54.

Figure 9 of the ’077 Patent is reproduced below:

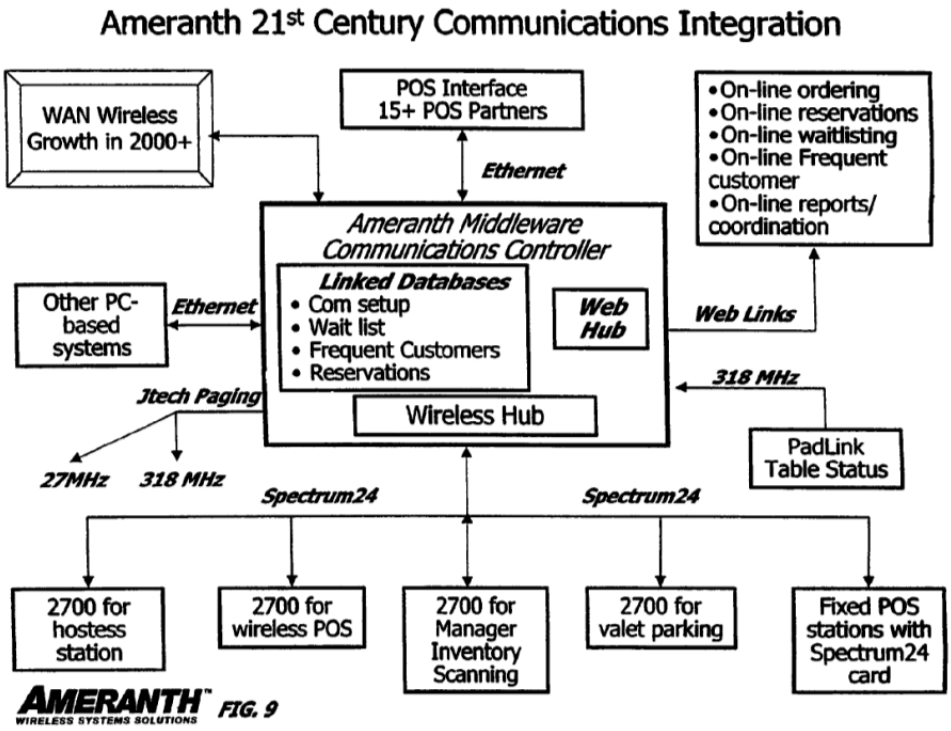


Figure 9 is an exemplary system diagram that illustrates how “[a] single point of entry works to keep all wireless handheld devices and linked web sites in synch with the backoffice server applications so that the different components are in equilibrium at any given time and an overall consistency is achieved.” Ex. 1004, 5:29–33.

In one embodiment, a modified menu can be generated to meet a particular specification or group of criteria such as, e.g., “dinner,” “low fat,” or “vegetarian.” Ex. 1004, 15:6–9. “In this embodiment, only items from the master menu that satisfy specified parameters will be included in the generated menu.” *Id.* at 15:9–12.

C. Illustrative Claims

Claims 1, 9, and 13 are independent. Claims 2–8 depend from claim 1, claims 10–12 depend from claim 9, and claims 14–18 depend from claim 13. Claims 1, 7, and 13 are illustrative of the '077 Patent, and are reproduced below:

> 1. An information management and real time synchronous communications system for configuring and transmitting hospitality menus comprising:
>
> a. a central processing unit,
>
> b. a data storage device connected to said central processing unit,
>
> c. an operating system including a first graphical user interface,
>
> d. a master menu including at least menu categories, menu items and modifiers, wherein said master menu is capable of being stored on said data storage device pursuant to a master menu file structure and said master menu is capable of being configured for display to facilitate user operations in at least one window of said first graphical user interface as cascaded sets of linked graphical user interface screens, and
>
> e. menu configuration software enabled to generate a programmed handheld menu configuration from said master menu for wireless transmission to and programmed for display on a wireless handheld computing device, said programmed handheld menu configuration comprising at least menu categories, menu items and modifiers and wherein the menu configuration software is enabled to generate said programmed handheld menu configuration by utilizing parameters from the master menu file structure defining at least the menu categories, menu items and modifiers of the master menu such that at least the menu categories, menu items and modifiers comprising the programmed handheld menu configuration are synchronized in

real time with analogous information comprising the master menu,

wherein the menu configuration software is further enabled to generate the programmed handheld menu configuration in conformity with a customized display layout unique to the wireless handheld computing device to facilitate user operations with and display of the programmed handheld menu configuration on the display screen of a handheld graphical user interface integral with the wireless handheld computing device, wherein said customized display layout is compatible with the displayable size of the handheld graphical user interface wherein the programmed handheld menu configuration is configured by the menu configuration software for display as programmed cascaded sets of linked graphical user interface screens appropriate for the customized display layout of the wireless handheld computing device, wherein said programmed cascaded sets of linked graphical user interface screens for display of the handheld menu configuration are configured differently from the cascaded sets of linked graphical user interface screens for display of the master menu on said first graphical user interface, and

wherein the system is enabled for real time synchronous communications to and from the wireless handheld computing device utilizing the programmed handheld menu configuration including the capability of real time synchronous transmission of the programmed handheld menu configuration to the wireless handheld computing device and real time synchronous transmissions of selections made from the handheld menu configuration on the wireless handheld computing device, and

wherein the system is further enabled to automatically format the programmed handheld menu configuration for display as cascaded sets of linked graphical user interface screens appropriate for a customized display layout of at least two different wireless handheld computing device display sizes in the same connected system, and

wherein a cascaded set of linked graphical user interface screens for a wireless handheld computing device in the system includes a different number of user interface screens from at least one other wireless handheld computing device in the system.

7. The information management and real time synchronous communications system in accordance with claim 1, further enabled to facilitate and complete payment processing directly from the wireless handheld computing device including: a) Billing; b) Status and c) Payment Information.

13. An information management and real time synchronous communications system for use with wireless handheld computing devices and the internet comprising:

a. a master database connected in said system and configured to store hospitality application information pursuant to a master database file structure;

b. at least one wireless handheld computing device connected in said system and configured to display said hospitality application information;

c. at least one web server connected in said system;

d. at least one web page connected in said system and configured to display said hospitality application information; and

e. real time communications control software enabled to link and synchronize hospitality application information simultaneously between the master database, wireless handheld computing device, web server and web page,

wherein the communications control software is enabled to utilize parameters from the master database file structure to synchronize the hospitality application information in real time between the master database, at least one wireless handheld computing device, at least one web server and at least one web

page such that substantially the same information comprising the hospitality application information is capable of being displayed on the wireless handheld computing device, at least one web page and other display screens of the synchronized system, such that the hospitality application information is synchronized between any connected users,

wherein the communications control software is enabled to act as a real time interface between the elements of the system and any applicable communications protocol,

wherein the communications control software is enabled to automatically and simultaneously configure the hospitality application information for display on both the wireless handheld computing device and the web page in conformity with a customized display layout unique to the wireless handheld computing device or the web page, wherein said customized display layout is compatible with the displayable size of the handheld computing device display screen or the web page, and

wherein the communications control software is further enabled to automatically format a programmed handheld configuration for display as cascaded sets of linked graphical user interface screens appropriate for a customized display layout of at least two different wireless handheld computing device display sizes in the same connected system, and

wherein a cascaded set of linked graphical user interface screens for a wireless handheld computing device in the system includes a different number of user interface screens from at least one other wireless handheld computing device in the system, and

wherein the system is enabled for real time synchronous transmission of the configured hospitality application information to the wireless handheld computing device, the web server and the web page and real time synchronous transmissions of inputs responding to the configured hospitality application information from the wireless handheld computing device, or the web server or the web page.

D. The Asserted References

Petitioner relies upon the following references (*see* Pet. 9):

Reference	**Patent No./Title**	**Date**	**Exhibit**
Blinn	US 6,058,373	Apr. 27, 1999[5]	Ex. 1025
Digestor	Timothy Bickmore & Bill N. Schilit, *Digestor: Device-Independent Access to the World Wide Web*, 29 Computer Networks and ISDN Systems 1075–1082 (1997)	1997	Ex. 1022
Micros 8700 UM	*Micros 8700 HMS Version 2.10 User's Manual* (including *Micros 8700 HMS Version 2.10 Appendix*), MICROS Systems, Inc.	June 1997	Ex. 1027

E. The Asserted Grounds

Petitioner challenges claims 1–18 of the '077 Patent on the following grounds (Pet. 9):

[5] This is the asserted publication date based on incorporation by reference of U.S. Patent Application No. 08/732,205 (from which Blinn issued) in U.S. Patent No. 5,897,622, which issued on April 27, 1999. *See* Pet. 57–58 (asserting that Blinn is § 102(a) prior art); Ex. 1038 (U.S. Patent No. 5,897,622), 9:63–10:1).

Reference(s)	Basis	Claims Challenged
	§ 112 ¶ 2[6]	1–18
Micros 8700 UM and Digestor	§ 103(a)	1–18
Blinn and Digestor	§ 103(a)	13–18

II. ANALYSIS

A. Claim Construction

As a first step in our analysis for determining whether to institute a covered business method patent review, we determine the meaning of the claims. In a covered business method patent review, a claim in an unexpired patent shall be given its broadest reasonable construction in light of the specification of the patent in which it appears. 37 C.F.R. § 42.300(b); *see also In re Cuozzo Speed Techs., LLC*, No. 2014-1301, 2015 WL 4097949, at *7–8 (Fed. Cir. July 8, 2015) ("We conclude that Congress implicitly approved the broadest reasonable interpretation standard in enacting the AIA" and "the standard was properly adopted by PTO regulation."). Under the broadest reasonable interpretation standard, and absent any special definitions, claim terms are given their ordinary and customary meaning, as would be understood by one of ordinary skill in the art in the context of the

[6] Section 4(c) of the Leahy-Smith America Invents Act ("AIA") re-designated 35 U.S.C. § 112 ¶ 2, as 35 U.S.C. § 112(b). Pub. L. No. 112-29, 125 Stat. 284, 296 (2011). Because the '077 Patent has a filing date before September 16, 2012 (effective date of § 4(c)), we will refer to the pre-AIA version of § 112.

entire disclosure. *In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007). Further, "the specification and prosecution history only compel departure from the plain meaning in two instances: lexicography and disavowal." *GE Lighting Solutions, LLC v. AgiLight, Inc.*, 750 F.3d 1304, 1309 (Fed. Cir. 2014) (citing *Thorner v. Sony Computer Entm't Am. LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012)). The standards for lexicography and disavowal are exacting, and require clear intent to define or narrow a term. *Thorner*, 669 F.3d at 1365–66. Any special definition for a claim term must be set forth with reasonable clarity, deliberateness, and precision. *In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994).

Petitioner contends that a person of ordinary skill in the art ("POSITA") at the time of the invention of the '077 Patent would have had "a Bachelor's degree in either electrical engineering or computer science and two years of experience in the fields of developing software for wireless networks and devices, developing Internet-based systems or applications, or an equivalent experience in software development of up to 5 years." Pet. 10 (citing Ex. 1002 ¶¶ 71–72). Patent Owner does not dispute Petitioner's contention. Prelim. Resp. 3 n.5. Accordingly, for purposes of this Decision, we adopt Petitioner's definition of the level of ordinary skill in the art.

Petitioner requests that we adopt the claim interpretations set forth in our Decision denying institution in CBM2014-00014 (also involving the '077 Patent). Pet. 15. We are not persuaded, however, that all of those claim interpretations are required by our Decision in this case. Therefore, we deny Petitioner's request.

Petitioner also requests that we interpret explicitly eight claim terms and the preambles of the independent claims. Pet. 16–18. Patent Owner requests that interpret explicitly 12 claim terms and the preambles of the independent claims. Prelim. Resp. 20–27. We provide below only those interpretations required by our Decision. *See Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999) (stating that "only those terms need be construed that are in controversy, and only to the extent necessary to resolve the controversy").

1. "Synchronized"

In related Case CBM2014-00014 involoving the same patent, we determined that the broadest reasonable interpretation consistent with the Specification of "synchronized" is made to happen, exist, or arise *at the same time*. Ex. 1019, 18. As noted above, Petitioner requests that we adopt all the claim interpretations set forth in our Decision denying institution in Case CBM2014-00014. Pet. 15. Nevertheless, Petitioner's argument that "synchronized" encompasses "downloading a menu from one device to another device" appears to disregard the "same time" requirement in that interpretation. *See id.* at 16. Patent Owner leaves no doubt about its disagreement with the "same time" requirement in our previous interpretation, and argues that "the 'timing' aspect of the claims is separately governed by the 'real time' term." Prelim. Resp. 26. Patent Owner proposes to construe "synchronized" as "made or configured to make consistent." *Id.* (citing Ex. 1004, 2:35–38, 5:31–33, 12:49–51 ("in synch with the backoffice

server (central database) so that the different components are in equilibrium and an overall consistency is achieved")).

For purposes of this Decision, we are persuaded that the broadest reasonable interpretation consistent with the Specification of "synchronized" is made, or configured to make, consistent. As such, we agree with Petitioner that "synchronized" encompasses downloading a menu from one device to another device.

2. "Real time"

Petitioner contends that "real time" should be construed to mean "a data-processing technique in which information is utilized as events occur and the information is generated, as opposed to batch processing at a time unrelated to the time the information was generated." Pet. 17 (citing Ex. 1066, 627; Ex.1034, 11; Ex. 1002 ¶ 90). Petitioner argues that this construction "is consistent with the distinction drawn in the '077 patent between 'real time communication over the [I]nternet' and 'support for batch processing that can be done periodically throughout the day.'" *Id.* at 18 (citing Ex. 1004, 2:27–31; Ex. 1002 ¶ 90).

Patent Owner contends that "real time" should be construed to mean "pertaining to a system or mode of operation in which computation is performed during the actual time that an external process occurs, in order that the computation results can be used to control, monitor, or respond in a timely manner to the external process." Prelim. Resp. 22 (citing *Dominion Dealer Solutions, LLC v. AutoAlert, Inc.*, Case IPR2013-00222, slip op. at

12–13 (PTAB Aug. 12, 2013) (Paper 12) (citing the IEEE Standard Dictionary of Electrical and Electronics Terms (6th ed. 1996)).

For purposes of this Decision, we adopt the ordinary and customary meaning of "real time" as set forth in Rudolf F. Graf, Modern Dictionary of Electronics (7th ed. 1999):

> 1. Having to do with the actual time during which physical events take place. 2. The performance of a computation during the actual time that the related physical process transpires in order that results of the computations are useful in guiding the physical process.

Ex. 1066, 627. This definition, which is taken verbatim from a dictionary placed in evidence by Petitioner, is consistent with use of "real time" in the Specification and the construction argued by Patent Owner. *See id.*; Ex. 1004, 2:27–3; Prelim. Resp. 22.

3. "Web page"

In related Case CBM2014-00015, we determined that the broadest reasonable interpretation consistent with the Specification of "web page" is a document, with associated files for graphics, scripts, and other resources, accessible over the internet and viewable in a web browser. Ex. 1017, 8. Petitioner and Patent Owner agree that this is the proper interpretation. Pet. 17; Prelim. Resp. 27. We adopt that interpretation for purposes of our Decision in this case.

B. Covered Business Method Patent

Under § 18(a)(1)(E) of the AIA, the Board may institute a transitional proceeding only for a patent that is a "covered business method patent." A

"covered business method patent" is a patent that "claims a method or corresponding apparatus for performing data processing or other operations used in the practice, administration, or management of a financial product or service, except that the term does not include patents for technological inventions." AIA § 18(d)(1); *see* 37 C.F.R. § 42.301(a). A patent need have only one claim directed to a covered business method to be eligible for review. *See* Transitional Program for Covered Business Method Patents—Definitions of Covered Business Method Patent and Technological Invention; Final Rule, 77 Fed. Reg. 48,734, 48,736 (Aug. 14, 2012) ("CBM Rules") (Comment 8).

Here, the parties disagree as to whether the '077 Patent is a covered business method patent under § 18(d)(1) of the AIA and 37 C.F.R. § 42.301(a).

1. Financial Product or Service

Petitioner contends that at least claim 7 of the '077 Patent satisfies the "financial product or service" component of the definition set forth in § 18(d)(1) of the AIA. Pet. 7. Claim 7 recites "the information management and real time synchronous communications system in accordance with claim 1, further enabled to facilitate and complete payment processing." Petitioner argues that claim 7 is "'incidental to financial activity' and/or 'complementary to financial activity' and thus satisfies the first requirement of AIA § 18(d)(1)." *Id.*

The legislative history supports Petitioner's position, where it explains that the phrase "financial product or service" is not limited to the products or

services of the "financial services industry" and is to be interpreted broadly. *See* CBM Rules, 77 Fed. Reg. at 48735–36. For example, the "legislative history explains that the definition of covered business method patent was drafted to encompass patents 'claiming activities that are financial in nature, incidental to a financial activity or complementary to a financial activity.'" *See id.* (citing 157 Cong. Rec. S5432 (daily ed. Sept. 8, 2011) (statement of Sen. Schumer)).

We are persuaded that the claims of the '077 Patent meet the financial-in-nature requirement of § 18(d)(1) of the AIA.

2. Technological Invention Exception

Petitioner asserts that claim 7 of the '077 Patent does not fall within the exclusion for "technological inventions" set forth in § 18(d)(1) because it is not directed toward a technological invention. Pet. 7–9. Patent Owner responds that the Board has held, in other cases, that similar claims were directed to a technological invention. Prelim. Resp. 1 n.1.

To determine whether a patent is for a technological invention, we consider "whether the claimed subject matter as a whole recites a technological feature that is novel and unobvious over the prior art; and solves a technical problem using a technical solution." 37 C.F.R. § 42.301(b). The following claim drafting techniques, for example, typically do not render a patent a "technological invention":

> (a) Mere recitation of known technologies, such as computer hardware, communication or computer networks, software, memory, computer-readable storage medium,

> scanners, display devices or databases, or specialized machines, such as an ATM or point of sale device.
>
> (b) Reciting the use of known prior art technology to accomplish a process or method, even if that process or method is novel and non-obvious.
>
> (c) Combining prior art structures to achieve the normal, expected, or predictable result of that combination.

Office Patent Trial Practice Guide, 77 Fed. Reg. 48,756, 48,763–64 (Aug. 14, 2012). Thus, a claim reciting use of only known prior art technology to accomplish a process or method does not define a technological invention, even if the claimed process or method, as a whole, is novel and unobvious.

We are persuaded that the ’077 Patent does not qualify under the technological invention exception, because the claimed subject matter, as a whole, recites use of only known technologies. *See* Pet. 7–9. As Petitioner argues, the Specification describes “typical hardware elements in the form of a computer workstation, operating system and application software elements” and “a typical file server platform including hardware such as a CPU, e.g., a Pentium® microprocessor, RAM, ROM, hard drive, modem, and optional removable storage devices, e.g., floppy or CD ROM drive.” *See id.* at 8 (citing Ex. 1004, 6:55–58, 7:1–2). In addition, “[t]he software applications for performing the functions falling within the described invention can be written in any commonly used computer language” and “[t]he discrete programming steps are commonly known . . . .” *See id.* (citing Ex. 1004, 12:57–61).

We have considered Patent Owner’s argument that “the PTAB has recently held that claims having structural similarities to the ’077 claims

were directed to a technological invention." Prelim. Resp. 1 n.1 (citing *Bloomberg L.P. v. Quest Corp.*, Case CBM2014-00205 (PTAB Apr. 7, 2015) (Paper 16); *Apple v. ContentGuard, Inc.*, Case CBM2015-00046 (PTAB June 3, 2015) (Paper 12). In *Bloomberg L.P. v. Quest Corp.*, the petitioner failed to meet its burden. Case CBM2014-00205, slip op. at 9. Further, the panel found convincing Patent Owner's affirmative showing that the patent solved a technical problem using a technical solution. *Id.* In *Apple v. ContentGuard*, the panel similarly determined that the petitioner failed to meet its burden. CBM2015-00046, slip op. at 10–11. The panel did not agree with Petitioner, for example, that the limitations in the claims "are simply generic functions that are capable of being performed by a general purpose computer." *Id.* at 11. Here, in contrast, the claims of the '077 Patent recite use of only known technologies.

We conclude that the '077 Patent is a "covered business method patent" eligible for covered business method patent review.

B. Asserted Unpatentability under 35 U.S.C. § 112 ¶ 2

The parties dispute whether the claim term "the same connected system," as recited in claims 1, 9, and 13, is indefinite for lack of antecedent basis. Pet. 21–22; Prelim. Resp. 28–30. It is undisputed that the specific term "same connected system" appears only once in each of claims 1, 9, and 13, and thus lacks an explicit antecedent basis in each of those claims. Petitioner argues that "it is not clear whether this limitation requires that the claimed system itself include two wireless handheld computing devices each

with a different display size, or whether the claimed system must be connected to a second system that has two wireless handheld computing devices with different display sizes." Pet. 21. Patent Owner argues that any ambiguity is clarified by claim 13. Prelim. Resp. 28–29.

As Patent Owner argues, "the same connected system" and "said system," in claim 13, clearly refer to the same "system." *See* Prelim. Resp. 28–29. The term "the same connected system" is used in claim 13 to define the system in which the "at least two different wireless handheld computing device display sizes" are connected:

> wherein the communications control software is further enabled to automatically format a programmed handheld configuration for display as cascaded sets of linked graphical user interface screens appropriate for a customized display layout of *at least two different wireless handheld computing device display sizes in the same connected system.*

Ex. 1004, 19:39–20:4 (emphasis added). As such, "the same connected system" implicitly refers back to "said system," in which the "at least one wireless handheld computing device," the "master database," the "web server," and the "web page," recited earlier in the claim, are explicitly "connected." *See* Ex. 1004, 19:1–14. The meaning and definiteness of "said system" in claim 13 are not disputed. Thus, claim 13 clarifies that "the same connected system" does not refer to a second system that has two wireless handheld computing devices with different display sizes. *See* Pet. 21; *Phillips v. AWH Corp.*, 415 F.3d 1303, 1314 (Fed. Cir. 2005) (en banc) ("Because claim terms are normally used consistently throughout the patent,

the usage of a term in one claim can often illuminate the meaning of the same term in other claims.").

As clarified by claim 13, "the same connected system" in claims 1 and 9 refers to "the system," as recited throughout those claims. Similar to "said system" in claim 13, the meaning and definiteness of "the system" in claims 1 and 9 are not disputed.

For the reasons given, we are not persuaded that "the same connected system" is indefinite, or that claims 1–18 are unpatentable for indefiniteness under 35 U.S.C. § 112 ¶ *2*.

C. Asserted Obviousness

A claim is unpatentable for obviousness under 35 U.S.C. § 103(a) if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. *See KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). A patent claim composed of several elements, however, is not proved obvious merely by demonstrating that each of its elements was known, independently, in the prior art. *Id.* at 418. In analyzing the obviousness of a combination of prior art elements, it can be important to identify a reason that would have prompted one of skill in the art to combine the elements in the way the claimed invention does. *Id.* A precise teaching directed to the specific subject matter of a challenged claim is not necessary to establish obviousness. *Id.* Rather, "any need or problem

known in the field of endeavor at the time of invention and addressed by the patent can provide a reason for combining the elements in the manner claimed." *Id.* at 420. The question of obviousness is resolved on the basis of underlying factual determinations, including: (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of skill in the art; and (4) objective evidence of nonobviousness, i.e., secondary considerations, when in evidence. *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

1. Micros 8700 OM and Digestor

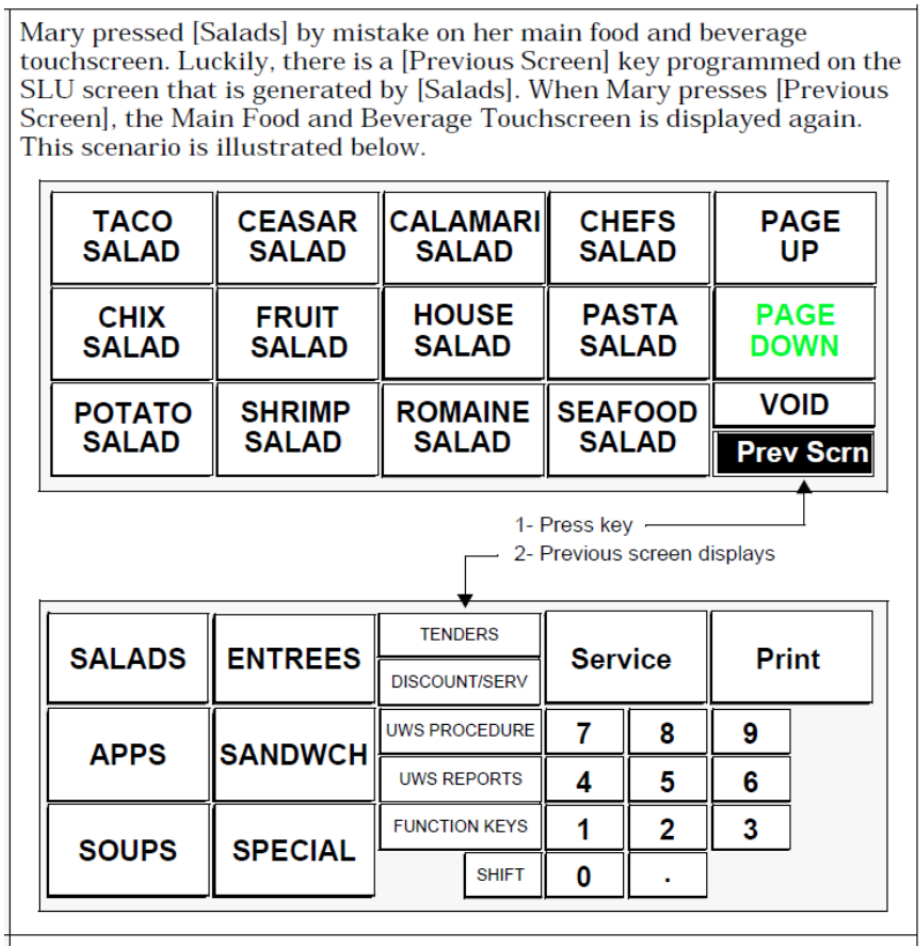
Petitioner asserts that claims 1–18 of the '077 Patent would have been obvious over the combined teachings of Micros 8700 OM and Digestor. Pet. 22–57.

a. Overview of Micros 8700 OM

According to Petitioner, Micros 8700 OM describes a menu-based, database-driven, point-of-sale restaurant management system sold and distributed by Micros Systems, Inc., called the Micros 8700 Hospitality Management System (the "Micros 8700 HMS"). Pet. 23; Ex. 1002 ¶ 561. The Micros 8700 HMS includes a Base Station ("BST") in communication with User Workstations ("UWSs") and Hand-Held Touchscreens ("HHTs"), which are portable UWSs. *Id.* at 24 (citations omitted); Ex. 1002 ¶ 562; Ex. 1027, 1-15. Up to 25 HHTs can communicate by radio frequency with a single BST. Ex. 1027, 1-15, 1-16.

Petitioner asserts that the BST, UWSs, and HHTs all include graphical user interfaces for displaying, manipulating, and storing menus. Pet. 24

(citing Ex. 1027, 1-3, 1-4, 1-18, 3-2, 5-2, 5-22, D-33, D-34, D-35). An example touchscreen is reproduced below:



Ex. 1027, 3-8. In the example, pressing the "[Salads]" key on the Main Food and Beverage Touchscreen (shown in the lower half of the figure) generates the Salads Touchscreen (shown in the upper half of the figure).

Petitioner asserts that the Micros 8700 HMS "synchronizes and updates information across [the devices in the system] through, *e.g.*, updating the menu data on these devices." Pet. 24 (citing Ex. 1027, 5-13).

b. Overview of Digestor

Digestor addresses "how to display arbitrary web pages which have been designed for desktop systems on personal electronic devices which have much more limited I/O capabilities." Ex. 1022, 1075. Digestor discloses an approach to this problem called "automatic re-authoring," which utilizes software that "can take an arbitrary web document designed for the desktop, along with characteristics of the target display device, and re-author the document through a series of transformations so that it can be appropriately displayed on the device." *Id.* at 1076. A method for performing automatic re-authoring, according to Digestor, involves use of "[s]ection header outlining techniques . . . for reducing the required display size for structured documents, such as technical papers and reports." *Id.* at 1078.

Figure 3 of Digestor is reproduced below:

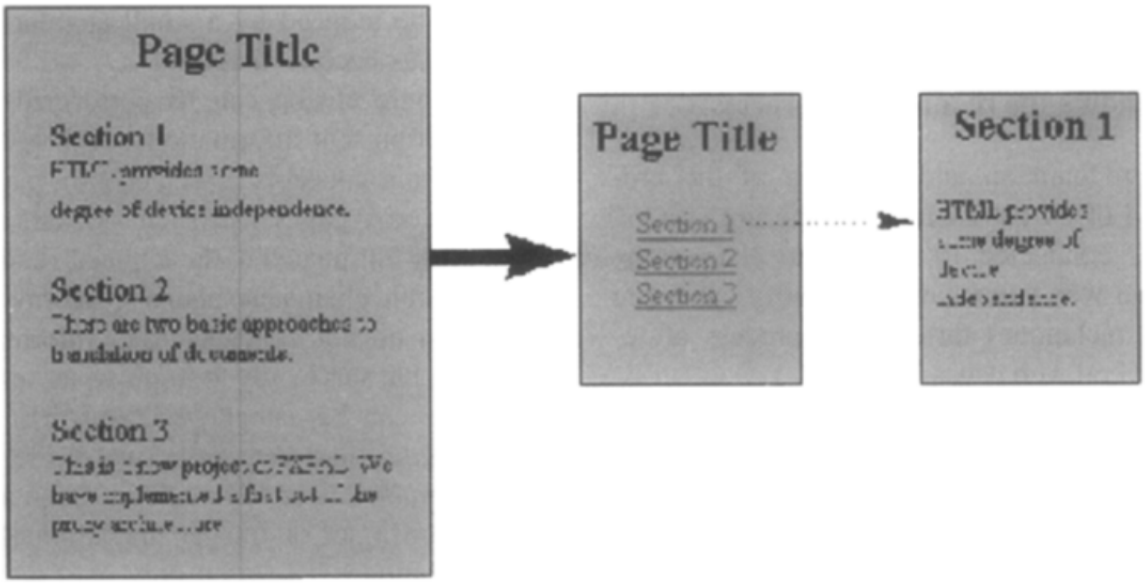


Fig. 3.

Ex. 1022, 1078. In the outlining technique illustrated in Figure 3, "[t]he content[] of each section is elided from the document and the section header is converted into a hypertext link which, when selected, loads the elided content into the browser." *Id.* Digestor teaches that "[s]ection header outlining techniques provide a very good method for reducing the required display size for structured documents, such as technical papers and reports." *Id.*

Digestor discloses that "an automatic re-authoring algorithm has been developed which captures many of the heuristics used in the manual re-authoring exercise." Ex. 1022, 1079. Heuristic information is used to determine when a document version is "good enough" to stop the transformation process. *Id.* Digestor teaches:

> The current condition for "good enough" is fairly simplistic; the search is stopped when the area required by a document version is 2.5 times the screen area of the client display (which assumes that the user doesn't mind scrolling the display a little in one direction).

Id. at 1080. The automated re-authoring process utilizes fifteen transformation techniques, including full outlining, to-level outlining, first sentence elision, and image reduction and elision. *Id.*

c. Analysis

Petitioner acknowledges that "the Micros 8700 HMS system was implemented using proprietary communications and data formats." Pet. 25. Relying on the Declaration of Don Turnbull, Ph.D, however, Petitioner argues that modifying the Micros 8700 HMS for use on the Internet would have been obvious to a POSITA:

> [I]t would have been obvious to a POSITA to implement that system using well-known Internet technologies such as hyp[]ertext transport protocol (HTTP) for communications (including transmission of menus, selections from menus, and updates relating to the same) among the system components, and hypertext markup language (HTML) and web browsers for authoring and displaying menus and other data at the user workstations and the HHTs. . . . It would further have been obvious to a POSITA to utilize a web server as disclosed in Digestor for communications among the various system components.

Id. at 25–26 (citing Ex. 1002 ¶¶ 565, 566). Petitioner asserts that a POSITA would have been motivated to modify the Micros 8700 HMS for use on the Internet "in order to take advantage of existing hardware and software to

minimize development costs." *Id.* at 26 (citing Ex. 1002 ¶ 566).

Petitioner further argues that applying "Digestor's customized display layout teachings to the user workstation and HHT devices supported by the Micros 8700 HMS so that menus would be displayed appropriately on the differently-sized display screens of all devices in the system" would have been obvious to a POSITA. Pet. 26. Petitioner asserts that the combination would have been obvious "[b]ecause both Micros 8700 UM and Digestor discuss display of data on multiple devices with different display configurations." *Id.* (citing Ex. 1002 ¶ 566).

In response, Patent Owner argues, *inter alia*, that Petitioner's obviousness rationale relies on the teachings of Digestor, which discloses "converting '*large web pages'* into '*small web pages,*' without ever addressing or acknowledging that the Micros 8700 never generated or had the functionality to have generated the "*large web pages*" (before or after being combined with Digestor) which Digestor required." Prelim. Resp. 40. In other words, Patent Owner argues that Petitioner fails to establish or explain the existence, or genesis, of large web pages in the Micros 8700 HMS. Patent Owner further argues that, without large web pages, there would have been no reason to apply the teachings of Digestor to the Micros 8700 HMS. *See id.*

Petitioner has not persuaded us that a POSITA would have created a web page for use in the Micros 8700 HMS that needed re-authoring as taught by Digestor in order to be displayed appropriately on the HHTs and UWSs. Petitioner has not addressed, for example, why a POSITA would

have substituted re-authored web page menus for the existing touchscreen menus designed specifically for use on the HHTs and USWs. Nor has Petitioner persuaded us that any wireless handheld computing device, other than the HTT, could have been used in the proprietary Micros 8700 HMS. Accordingly, Petitioner has not provided adequate articulated reasoning with rational underpinning to support the legal conclusion of obviousness. *See In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006) ("[T]here must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.").

With respect to the limitation "wherein a cascaded set of linked graphical user interface screens for a wireless handheld computing device in the system includes *a different number of user interface screens* from at least one other wireless handheld computing device in the system" (emphasis added), recited in each of independent claims 1, 9, and 13, Petitioner argues that "Digestor discloses customizing the display of information for devices, including the number of user interface screens, based on the screen size of the device." Pet. 39 (citing Ex. 1022, 1075; Ex. 1002 ¶¶ 628–34). Petitioner further argues:

> It would have been obvious to a POSITA to generate customized display layouts with different numbers of user interface screens for other types of handheld devices with different display sizes, as disclosed in Digestor, to enable the Micros 8700 HMS system to work with such other handheld devices.

Pet. 39 (citing Ex. 1022, 1075 (describing various personal digital assistants ("PDAs"), including the Sony MagicLink, Apple Newton, Nokia 9000 Communicator); Ex. 1002 ¶ 634).

We are not persuaded by Petitioner's arguments for several reasons. First, as asserted by Patent Owner, the Micros 8700 HMS has only a single type of wireless handheld computing device—the HHT. *See* Prelim. Resp. 52–53. Therefore, because Petitioner has not shown that any other wireless handheld computing device could have been used in the proprietary Micros 8700 HMS, Petitioner also has not shown that a different number of graphical user interface screens would have been used on any other wireless handheld computing device. Second, Petitioner has not explained why a POSITA would have selected, or designed, handheld devices having different display screen sizes for use in the Micros 8700 HMS. Third, even assuming that a wireless handheld computing device having a different display screen size from the HTT would have been used in the Micros 8700 HMS, Petitioner has not directed us to any teaching in Digestor that re-authoring a web page would have generated, necessarily, a number of graphical user interface screens for that handheld computing device different from the number for the HTT. For these reasons, we are not persuaded that the combination of the teachings of Micros 8700 OM and Digestor satisfies the limitation "wherein a cascaded set of linked graphical user interface screens for a wireless handheld computing device in the system includes a different number of user interface screens from at least one other wireless handheld computing device in the system," required by all the claims.

For the reasons given, Petitioner has not shown that it is more likely than not that claims 1–18 of the ’077 Patent are unpatentable as obvious over Micros 8700 OM and Digestor.

2. Blinn and Digestor

Petitioner asserts that claims 13–18 of the ’077 Patent would have been obvious over the combination of the teachings of Blinn and Digestor. Pet. 57–80.

a. Overview of Blinn

Blinn discloses an electronic merchandising system. Ex. 1025, 7:53–54, Fig. 1. Figure 1 of Blinn is reproduced below.

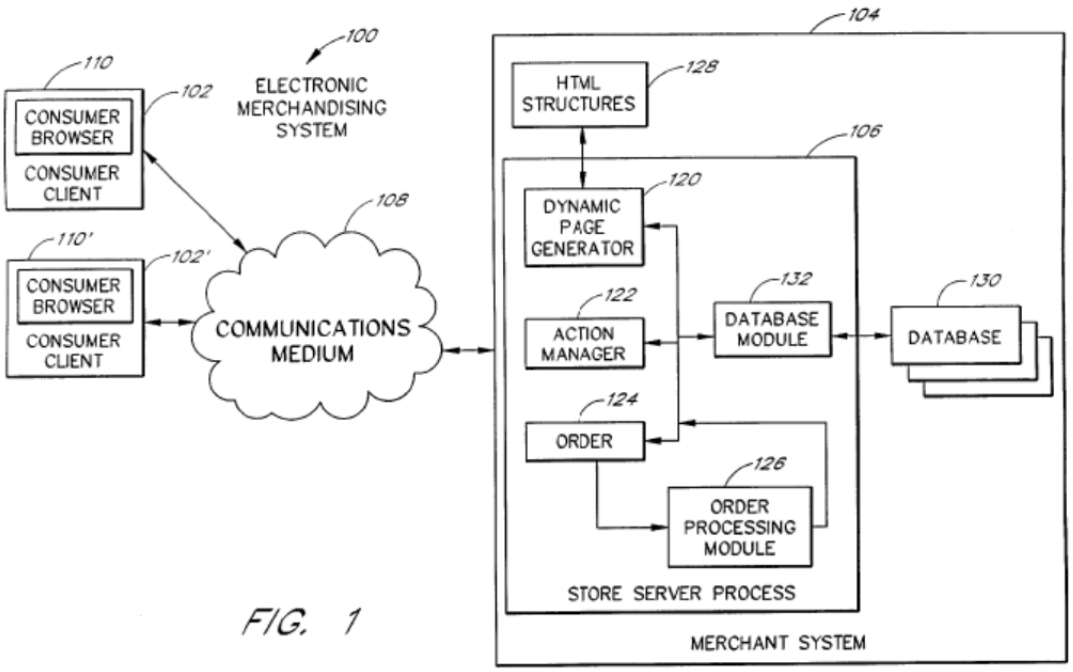


FIG. 1

Figure 1 is a high level block diagram illustrating electronic merchandising system 100, which allows merchants to provide a virtual store that processes sales transactions. Ex. 1025, 4:21–22, 7:53–57. The

system includes consumer browser 110, which communicates with store server 106 and displays web documents created by store server 106. *Id.* at 7:57–67. Consumer browser 110 may be contained in a PDA. *Id.* at 9:62–64, 10:9–12.

b. Analysis

With respect to the limitation "wherein a cascaded set of linked graphical user interface screens for a wireless handheld computing device in the system includes a different number of user interface screens from at least one other wireless handheld computing device in the system," recited in claim 13, Petitioner argues that:

> Digestor discloses the ability to re-author web documents based on the "the target display device, and re-author the document through a series of transformations so that it can be appropriately displayed on the device. This process can be performed either on the client, on the server, or on an intermediary HTTP proxy server . . . ."

Pet. 73–74 (quoting Ex. 1022, 1076; Ex. 1002 ¶¶ 806, 807). Petitioner also argues that "[a] POSITA would have found it obvious to combine the Digestor disclosure of re-authoring information for handheld devices with its disclosure of PDAs used in the Blinn system such that the web pages would be displayed appropriately [on] unique handheld devices." *Id.* at 74 (citing Ex. 1002 ¶ 807).

We are not persuaded by Petitioner's arguments for a number of reasons. First, Petitioner has not shown that re-authoring any document disclosed in Blinn would have generated a cascaded set of linked graphical user interface screens, as required by the claims. Second, Petitioner assumes

that the display sizes of PDAs at the relevant time were significantly different in size, but has not adduced any evidence of that fact. Third, Petitioner has not directed us to any teaching in Digestor that re-authoring any document necessarily would have generated a different number of graphical user interface screens for one PDA than another PDA. For these reasons, we are not persuaded that the combination of the teachings of Blinn and Digestor satisfy the limitation "wherein a cascaded set of linked graphical user interface screens for a wireless handheld computing device in the system includes a different number of user interface screens from at least one other wireless handheld computing device in the system," required by claim 13 and its dependent claims.

For the reasons given, Petitioner has not shown that it is more likely than not that claims 13–18 of the '077 Patent are unpatentable as obvious over Blinn and Digestor.

III. CONCLUSION

For the forgoing reasons, we determine that the information presented in the Petition does not establish that any of claims 1–18 of the '077 Patent are more likely than not unpatentable.

ORDER

Accordingly, it is

ORDERED that Petitioner's Petition in CBM2015-00081 for covered business method review is *denied*, and no covered business method review

will be instituted pursuant to 35 U.S.C. § 324 as to any claim of the ’077 Patent on any of the grounds of unpatentability alleged by Petitioner in that Petition; and

FURTHER ORDERED that Petitioner’s Petition in CBM2015-00095 for covered business method review is denied, and no covered business method review will be instituted pursuant to 35 U.S.C. § 324 as to any claim of the ’077 Patent on any of the grounds of unpatentability alleged by Petitioner in that Petition.

CBM2015-00081 (Patent 8,146,077 B2)
CBM2015-00095 (Patent 8,146,077 B2)

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