

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC., EVENTBRITE INC., and STARWOOD HOTELS & RESORTS
WORLDWIDE, INC.,

Petitioner

v.

AMERANTH, INC.,

Patent Owner

CASE CBM Unassigned

Patent No. 6,384,850

**PETITION FOR
COVERED BUSINESS METHOD REVIEW OF
U.S. PATENT NO. 6,384,850**

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1020	CBM2014-00013 – Paper 23 – ’733 Institution Decision
1021	Inkpen, Gary, INFORMATION TECHNOLOGY FOR TRAVEL AND TOURISM (2d ed. 1998)
1022	Timothy Bickmore, <i>Digestor: Device Independent Access to the World Wide Web</i> , Computer Networks and ISDN Systems 29, 1075-1082 (1997)
1023	Nokia 9000i Communicator Owner’s Manual (1997)
1024	U.S. Pat. No. 5,948,040 to DeLorme et al.
1025	U.S. Pat. No. 6,058,373 to Blinn et al.
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1028	Aronson, Larry, HTML Manual of Style (1994)
1029	Jesitus, “Wireless Technology Keeps Customers In Order,” Hospitality Technology (January 1977)
1030	<i>Ameranth Inc. v. Apple Inc.</i> , Case No. 3-12-cv-02350 (S.D. Cal., filed Sept. 26, 2012) (ECF No. 7) and <i>Ameranth Inc. v. Starwood Hotels & Resorts Worldwide, Inc.</i> , Case No. 12-cv-1629 (S.D. Cal. Filed June 29, 2012) (ECF No. 1)

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1038	U.S. Patent No. 5,897,622 to Blinn et al.
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1044	U.S. Patent No. 6,301,564 to Halverson et al.
1045	Complaint for priority in the IPDEV suit – 14-cv-1303
1046	U.S. Patent No. 5,937, 041 to Cardillo
1047	Micros Systems Inc. “POS Configuration User’s Guide: 3700

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1048	U.S. PG Pub 2002/0059405 to Angwin
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1052	<i>Ameranth, Inc. v. Menusoft Systems Corp.</i> , Ameranth Opp. to non-party Seamless North America, LLC’s motion for leave to file amicus curiae brief, E.D. Tex. Dkt. No. 2:07-cv-00271 at ECF No. 336.
1053	Micros Hand-Held Touchscreen Pre-Release Information (Sept. 8, 1992)
1054	Thesaurus.com Synonyms for “Ticket”
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1059	<i>Ameranth v. Menusoft Systems Corp.</i> , 07-cv-271-RSP, Dkt. 281 (E.D. Tex. 2010) Order Denying Ameranth’s Motion for JMOL
1060	Ameranth July 22, 2013 Infringement Contentions against Apple Inc.
1061	U.S. Patent No. 8,738,449 File History

1062	Sep. 13, 2010 Trial Testimony. <i>Ameranth v. MenuSoft</i> , 07-cv-271-RSP.
1063	Sep. 14, 2010 Trial Testimony. <i>Ameranth v. MenuSoft</i> , 07-cv-271-RSP.
1064	Sep. 15, 2010 Trial Testimony. <i>Ameranth v. MenuSoft</i> , 07-cv-271-RSP.
1065	Bruce Brown, “First Looks: Windows CE 2.0 Cornucopia,” PC Magazine (June 30, 1998)
1066	Graf, “Modern Dictionary of Electronics” (7th ed. 1999)
1067	Matthews & Poulsen, “FrontPage 98: The Complete Reference” (January 1998)

I. INTRODUCTION

Covered business method review of claims 12-16 of U.S. Patent No. 6,384,850 (Ex. 1001) (hereinafter “the ’850 patent”) is hereby requested. The ’850 patent has been asserted against Apple Inc. (“Apple”), Eventbrite Inc. (“Eventbrite”) and Starwood Hotels & Resorts Worldwide, Inc. (“Starwood”) (collectively, “Petitioner”) and others in at least 29 other different pending lawsuits. Exs. 1030, 1031.

The ’850 patent relates generally to the field of menu generation and synchronous communication. *See* Ex. 1017 at 4-5. Importantly, although much of the ’850 patent specification is dedicated to menu generation, Claims 12-16 do not include any menu generation limitations but instead claim an information management and synchronous communications system for use with wireless handheld computing devices and the internet. Exhibit 1001 at Claims 12-16. As explained below, each of the synchronous communication techniques recited in Claims 12-16 had been developed and were well known in the communication field long before the application for the ’850 patent was filed. Indeed, many of these techniques were already used in the market. *See* Exs. 1021-25. Claims 12-16 of the ’850 patent are therefore unpatentable over the prior art identified below.

II. COMPLIANCE WITH FORMAL REQUIREMENTS

A. Mandatory Notices Under 37 C.F.R. §§ 42.8(b)(1)-(4)

1. Real Parties-In-Interest

The real parties-in-interest are Apple, Eventbrite, and Starwood.

2. Related Matters

Petitioner, along with a number of other parties, previously sought Covered Business Method (“CBM”) review of the ’850 patent in CBM2014-00015 under 35 U.S.C. §§ 101 and 112. The Board, however, only granted review of claims 1-11 of the ’850 patent under the § 101 grounds. Ex. 1017 at 27.

Ameranth, Inc. (“Patent Owner”) has asserted the ’850 patent in the following 31 patent infringement lawsuits, including the suit filed against Petitioner. To the best of Petitioner’s knowledge, the following is a list of the defendants and the civil action numbers for the pending matters (Ameranth, Inc. is the lone plaintiff in each case): *Apple Inc.*, Case No. 3-12-cv-02350 (S.D. Cal., filed Sept. 26, 2012); *Starbucks Corp.*, Case No. 3-13-cv-01072 (S.D. Cal., filed May 6, 2013); *TicketBiscuit, LLC*, Case No. 3-13-cv-00352 (S.D. Cal., filed Feb. 13, 2013); *Ticketfly, Inc.*, Case No. 3-13-cv-00353(S.D. Cal., filed Feb. 13, 2013); *Eventbrite Inc.*, Case No. 3-13-cv-00350(S.D. Cal., filed Feb. 13, 2013); *Hilton Resorts Corp. et al*, Case No. 3-12-cv-01636 (S.D. Cal., filed July 2, 2012); *Kayak Software Corp.*, Case No. 3-12-cv-01640 (S.D. Cal., filed June 29, 2012); *Usablenet, Inc.*, Case No. 3-12-cv-01650(S.D. Cal., filed June 29, 2012); *Starwood Hotels & Resorts Worldwide, Inc.*, Case No. 3-12-cv-01629 (S.D. Cal., filed June 29, 2012); *Hotels.com, LP*, Case No. 3-12-cv-01634 (S.D. Cal., filed June 29,

2012); *Orbitz, LLC*, Case No. 3-12-cv-01644(S.D. Cal., filed June 29, 2012); *ATX Innovation, Inc.*, Case No. 3-12-cv-01656 (S.D. Cal., filed June 29, 2012); *Best Western International, Inc.*, Case No. 3-12-cv-01630 (S.D. Cal., filed June 29, 2012); *NAAMA Networks, Inc. et al*, Case No. 3-12-cv-01643 (S.D. Cal., filed June 29, 2012); *Hotel Tonight, Inc.*, Case No. 3-12-cv-01633 (S.D. Cal., filed June 29, 2012); *Travelocity.com, LP*, Case No. 3-12-cv-01649 (S.D. Cal., filed June 29, 2012); *Expedia, Inc.*, Case No. 3-12-cv-01654 (S.D. Cal., filed June 29, 2012); *Hyatt Corporation*, Case No. 3-12-cv-01627 (S.D. Cal., filed June 29, 2012); *Hotwire, Inc.*, Case No. 3-12-cv-01653 (S.D. Cal., filed June 29, 2012); *Wanderspot LLC*, Case No. 3-12-cv-01652 (S.D. Cal., filed June 29, 2012); *Micros Systems, Inc.*, Case No. 3-12-cv-01655 (S.D. Cal., filed June 29, 2012); *Marriott International, Inc. et al*, Case No. 3-12-cv-01631 (S.D. Cal., filed June 29, 2012); *Mobo Systems, Inc.*, Case No. 3-12-cv-01642 (S.D. Cal., filed June 29, 2012); *Fandango, Inc.*, Case No. 3-12-cv-01651 (S.D. Cal., filed June 29, 2012); *StubHub, Inc.*, Case No. 3-12-cv-01646(S.D. Cal., filed June 29, 2012); *TicketMaster, LLC et al*, Case No. 3-12-cv-01648 (S.D. Cal., filed June 29, 2012); *Agilysys, Inc.*, Case No. 3-12-cv-00858 (S.D. Cal., filed April 6, 2012); *Domino's Pizza, LLC et al*, Case No. 3-12-cv-00733 (S.D. Cal., filed March 27, 2012); *Pizza Hut, Inc. et al*, Case No. 3-12-cv-00742 (S.D. Cal., filed March 27, 2012); *Papa John's USA, Inc.* 12-cv-0729 (S.D. Cal. Filed March 27, 2012); and *OpenTable*,

Inc., Case Nos. 3-12-cv-00731 and 3-13-cv-01840 (S.D. Cal., filed March 27, 2012 and Aug. 8, 2013, respectively).

3. Lead and Back-up Counsel

Lead Counsel for Petitioner is James M. Heintz, DLA Piper LLP (US), Reg. No. 41,828, who can be reached by email at: jim.heintz@dlapiper.com, by phone at 703-773-4148, by fax at 703-773-5200, and by mail and hand delivery at: DLA Piper LLP (US) 11911 Freedom Drive, Suite 300, Reston, VA 20190. Backup counsel for Petitioner are Robert C. Williams; who can be reached by email at: robert.williams@dlapiper.com; by mail and hand delivery at: DLA Piper LLP (US) 401 B Street, Suite 1700, San Diego, California, 92101-4297; by phone at 619-699-2820, and by fax at 619-699-2701; and Ryan W. Cobb, Reg. No. 65,498; who can be reached by email at: ryan.cobb@dlapiper.com; by mail and hand delivery at: DLA Piper LLP (US) 2000 University Avenue, East Palo Alto, California, 94303-2214; by phone at 650-833-2235, and by fax at 650-833-2001.

Petitioner hereby requests authorization to file a motion for Robert C. Williams to appear *pro hac vice*. Mr. Williams is an experienced litigating attorney, is counsel for Petitioner in the above litigation, and as such has an established familiarity with the subject matter at issue in this proceeding.

4. Power of Attorney and Service Information

Powers of attorney are being filed with the designation of counsel in

accordance with 37 C.F.R. § 42.10(b). Service information for lead and back-up counsel is provided in the designation of lead and back-up counsel above. Service of any documents via hand delivery may be made at the postal mailing address of the respective lead and back-up counsel designated above. Petitioner hereby consents to electronic service.

B. Proof of Service on the Patent Owner

As identified in the attached Certificate of Service, a copy of this Petition in its entirety is being served to the Patent Owner's attorney of record at the address listed in the USPTO's records by overnight courier pursuant to 37 C.F.R. § 42.6.

C. Fee

The undersigned authorizes the Director to charge the fee specified by 37 C.F.R. § 42.15(b) and any additional fees that might be due in connection with this Petition to Deposit Account No. 50-1442.

III. GROUNDS FOR STANDING

In accordance with 37 C.F.R. § 42.304(a), the Petitioner certifies that the '850 patent is available for CBM review because, as explained further below, the '850 patent constitutes a covered business method patent as defined by Section 18 of the America Invents Act (*see* AIA § 18(d)(1)), and further certifies that the Petitioner is not barred or estopped from requesting CBM review of the Challenged Claims of the '850 patent on the grounds identified in this Petition. Petitioner is eligible to file this petition because Ameranth has sued Petitioner for

alleged infringement of the '850 patent. *See* Ex. 1030. Additionally, Petitioner is not estopped from pursuing this petition under 37 C.F.R. § 42.73(d)(1) because the Board has not issued a final written decision on the Challenged Claims.

A. The '850 Patent 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 terms does not include patents for technological inventions.” AIA § 18(d)(1). This definition was drafted to encompass patents “claiming activities that are financial in nature, incidental to a financial activity or complementary to a financial activity.” Final Rule, 77 Fed. Reg. 48,734, 48735 (Aug. 14, 2012). A single claim directed toward a covered business method makes every claim of the patent eligible for CBM review, even if a Petition does not seek review of that claim. *See CRS Advanced Technologies, Inc. v Frontline Technologies, Inc.*, CBM2012-0005, Paper 17 at 6-9 (granting CBM review of claims 3, 6, 7, 16, 24 and 33 while relying in part on recitation of “retail bank” in claim 1 to fulfill the requirement that the patent be directed to a financial activity).

As the Board has previously determined, at least claim 1 of the '850 patent qualifies as a covered business method as has previously been determined by the Board in CBM2014-00016. *See* Ex. 1017 at 9-14. Claim 1 is directed toward a

“system for generating and transmitting menus” and recites as its last phrase that a generated second menu is “applicable to a predetermined type of ordering.” Ex. 1001 at 14:48-49 and 15:9-11. The “ordering” in this phrase relates to the ordering of a meal at a restaurant (Ex. 1001 at Abstract), and therefore is at least incidental to and complementary to the sale of the meal. Thus, the subject matter of at least claim 1 is directed toward a system that performs a covered business method and therefore satisfies the first requirement of AIA § 18(d)(1). Ex. 1017 at 11.

Claim 1 does not fit within the exception to a covered business method because it is not directed toward a technological invention. To qualify as a technological invention, the subject matter as a whole must recite a technological feature that (1) is novel and unobvious over the prior art (the “first prong”), and (2) solves a technical problem using a technical solution (the “second prong”). *Id.* at 11. Both prongs must be met for the exception to apply. *Id.* The Board has previously found that neither prong applies to claim 1 of the ’850 patent. *See* Ex. 1017 at 11. Furthermore, the Office Patent Trial Practice Guide states that “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” does not typically render a patent a technological invention.” The ’850 patent makes abundantly clear that the system of claim 1 utilizes nothing but known prior art technology:

The preferred embodiment of the present invention uses typical hardware elements in the form of a computer workstation, operating system and application software elements which configure the hardware elements for operation in accordance with the present invention. Ex. 1001 at 5:33-37.

The preferred embodiment also encompasses 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.” *Id.* at 5:37-44.

The software applications for performing the functions falling within the described invention can be written in any commonly used computer language. The discrete programming steps are commonly known and thus programming details are not necessary to a full description of the invention. *Id.* at 11:43-48.

Accordingly, at least claim 1 of the '850 patent does not satisfy the technological invention exception, and the '850 patent is therefore eligible for covered business method review.

IV. STATEMENT OF PRECISE RELIEF REQUESTED

In accordance with 37 C.F.R. § 42.22, the Petitioner respectfully requests that claims 12-16 of the '850 patent be found unpatentable for the reasons below.

V. IDENTIFICATION OF PATENTABILITY CHALLENGES

In accordance with 35 U.S.C. § 321 and 37 C.F.R. § 42.304(b), CBM review of claims 12-16 of the '850 (the “Challenged Claims”) patent is requested in view

of the following grounds:

A. The Challenged Claims are unpatentable under 35 U.S.C. § 103 (pre-AIA) as being obvious over Inkpen, Gary, *Information Technology for Travel and Tourism* (2d ed. 1998) (“Inkpen”) (Ex. 1021, “Inkpen”), in view of Timothy Bickmore, *Digestor: Device Independent Access to the World Wide Web, Computer Networks and ISDN Systems* 29, 1075-1082 (1997) (Ex. 1022, “Digestor”) and the Nokia 9000i Communicator Owner’s Manual (1997) (Ex. 1023, “Nokia”).

B. Claims 12, 13, and 16 are unpatentable under 35 U.S.C. § 103 (pre-AIA) as being obvious over U.S. Pat. No. 5,948,040 (Ex. 1024, “DeLorme”).

C. The Challenged Claims are unpatentable under 35 U.S.C. § 103 (pre-AIA) as being obvious over U.S. Pat. No. 6,058,373 to Blinn, et al. (Ex. 1025, “Blinn”) in view of Inkpen.

VI. LEVEL OF ORDINARY SKILL IN THE ART

A person of ordinary skill in the art at the time of the alleged invention of the '850 patent (a “POSITA”) 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. Ex. 1002 ¶¶ 71-72.

VII. SUMMARY OF THE '850 PATENT

A. Patent Specification and Claims

The application for the '850 patent was filed on September 21, 1999. The '850 patent does not claim priority to any other application. Accordingly, September 21, 1999 is the effective filing date.

A primary theme of the '850 patent, and the “principal object” of the alleged invention described therein, is to provide a system that “facilitates user-friendly and efficient generation of computerized menus for restaurants and other applications that utilize equipment with non-PC-standard graphical formats, display sizes and/or applications.” Ex. 1001 at 2:56-62. The generation of menus is the subject of claims 1-11, for which a prior CBM trial (CBM2014-00015) was instituted, and a large majority of the specification is devoted to describing such menus and how they are generated. Ex. 1002 ¶¶ 46-47.

Claims 12-16 at issue here, however, do not even recite the term “menu” or any other limitations relating to menu generation. These claims are instead directed toward an “information management and synchronous communications system for use with wireless handheld computing devices and the internet.” Ex. 1001 at 16:1-3. The system of claims 12-16 includes “a central database,” “at least one handheld wireless computing device,” “at least one web server,” “at least one web page,” and “a communications control module.” Ex. 1001 at 16:4-14.

“Hospitality applications and data” are stored on the wireless handheld computing device, the web server and the web page; and the central database contains “hospitality applications and data.” *Id.* The hospitality applications and data are “synchronized” between the central database, the web server, the web page and the wireless handheld computing device. *Id.* at 15-17; Ex. 1002 ¶ 48.

The '850 patent does not provide any diagram of the system formed by the components of claim 12, and claim 12 does not specify any relationship between these components. Thus, it is not clear to one of ordinary skill in the art how some of these various components are connected to each other and/or interact with each other. Ex. 1002 ¶ 49. For example, the “application program interface” (“API”) recited in claim 12 is mentioned only three times in the specification, and all that is disclosed about the API is that (1) it is a feature that is missing from software for fully realizing the potential of wireless handheld computing devices and (2) it “enables third parties such as point of sale (“POS”) companies, affinity program companies and internet content providers to fully integrate with computerized hospitality applications.” Ex. 1001 at 2:5-15; 3:63-67, and 11:15-18. The specification of the '850 patent does not specify whether this application program interface software runs on the wireless handheld computing device or one of the other devices recited in claim 12 and does not explain what functions the API performs or how it enables POS companies, affinity program companies, or

internet content providers to “fully integrate” with the computerized hospitality applications that claim 12 requires be stored on the web page, the web server and the wireless handheld computing device. Accordingly, the location where the API resides in the system of claim 12 and what the API does is unclear. Ex. 1002 ¶ 50.

Similarly, the specification leaves unanswered several questions concerning the “communications control module.” This module is described in the ’850 patent specification as a program to monitor all devices in the network, receiving and decoding messages sent between the devices, and routing the messages to the appropriate device. Ex. 1001 at 9:21-48. The communications control module is also described as a “layer that sits on top of any communications protocol” that “provides a single point of entry for all hospitality applications to communicate with one another wirelessly or over the web.” Ex. 1001 at 11:24-30. The specification does not explain if the communications control module “layer” is a single piece of software that runs on a device (sometimes referred to in the art as a communications controller or front end processor) or multiple instances of software, each of which runs on a respective web page, web server, wireless handheld computing device and central database. Ex. 1002 ¶ 51. The similarity of the phrase “communications control module” to the art-recognized phrase “communications controller” and the description of the communications control module as a single point of entry and as performing a routing function suggest the

former, whereas the description of a “layer that sits on top of any communications protocol” suggests the latter. *Id.*

The specification also states that the “single point of entry” that is provided by the communications control module “works to keep all wireless handheld devices and linked Web sites in synch with the [central database] so that the different components are in equilibrium at any given point in time and an overall consistency is achieved.” Ex. 1001 at 11:32-36. The specification is silent, however, as to exactly what “work” the communications control module does to keep all wireless handheld devices and linked websites in synch with the central database. Thus, it is not clear if this “work” is simply facilitating communications between these components, or is something more. Ex. 1002 ¶¶ 52-53.

Claim 12 further requires that the communications control module “is an interface between the hospitality applications and any other communications protocol.” Ex. 1001 at 16:20-22. This requirement is problematic for the reasons discussed below and thus creates additional confusion as to the nature of the communications control module. Ex. 1002 ¶¶ 55-56.

B. Overview of the Prosecution History

The Challenged Claims were issued on what was essentially a first action allowance. The application for the ’850 patent, U.S. Patent Application Number 09/400,413 (the “’413 application”) was filed on September 21, 1999. Ex. 1010 at

7. On November 27, 2000, the examiner issued a first Office Action rejecting original claims 1-19 and 31-39 while allowing claims 20-30 and 40-43, which ultimately issued as claims 1-11 and 12-15 of the '850 patent. *Id.* at 77-82. In his statement on the reasons for allowance, the examiner mistakenly stated that the Challenged Claims recited the “uniquely distinct features” of “a sub-modifier menu stored on data storage device and displayable in a window of a graphical user interface, and application software for generating a second menu from first menu and transmitting second menu to a wireless handheld computing device or Web page.” *Id.* at 80. While these allegedly uniquely distinct features appear in what issued as independent claim 1, these features are not recited in what issued as claims 12-15. Nowhere in independent claim 12 do the terms “sub-modifier,” “menu” or “application software” appear. Accordingly, claims 12-15 do not recite the allegedly patentable features described by the examiner, and claims 12-15 should not have been allowed along with claims 1-11 for the reasons stated by the examiner.

On February 26, 2001, the applicants responded to the first Office Action adding new claims and amending the previously rejected claims while making no changes to the allowed claims. Ex. 1010 at 196-203. Of the newly added claims, the examiner responded by rejecting all but one which ultimately issued as dependent claim 16. *Id.* at 224. The examiner repeated the same reasons for

allowance with respect to the allowed claims. *Id.* at 230.

The applicants responded on July 19, 2001 cancelling the rejected claims to further pursue in a continuation application (which would be the base application for what ultimately issued as U.S. Patent No. 6,871,325 (Ex. 1003, the “’325 patent”), and requested issuance of the allowed claims. July 19, 2001 Response at 1. The ’850 patent issued on May 7, 2002.

C. Failure to Establish Conception and/or Reduction to Practice

In the prosecution of U.S. Patent No. 8,146,077 (Ex. 1004, the “’077 patent”) which is a continuation-in-part of the ’850 patent, Patent Owner made two attempts to antedate references by submitting inventor declarations. The examiner rejected the first attempt and did not address the second attempt. Patent Owner may contend that the claims of the ’850 patent are entitled to a priority date that antedates Blinn or one of the other references relied on in this Petition based on these declarations. However, these declarations are insufficient to establish an earlier priority date for the following reasons.

1. Statement of the Law

A reference may be antedated by showing conception of the invention prior to the effective date of the reference, coupled with either (1) a reduction to practice prior to the effective date of the reference, or (2) diligence from a period just prior to the effective date of the reference through a reduction to practice. MPEP

§ 2138.06. The reduction to practice may be actual or constructive. MPEP § 2138.05. To establish conception, one must show that the inventor was in possession of each claim limitation. *Coleman v. Dines*, 754 F.2d 353, 359 (Fed. Cir. 1985). Conception testimony must be corroborated. *Id.* A “rule of reason” analysis is applied to determine whether conception has been corroborated. *Id.* at 360.

During the period in which diligence must be shown, there must be a continuous exercise of reasonable diligence. *Garmin Int’l, Inc. v. Cuozzo Speed Techs. LLC*, IPR2012-00001, Paper No. 59 (PTAB 2013). A party alleging diligence must account for the entire critical period. *Griffith v. Kanamaru*, 816 F.2d 624, 626 (Fed. Cir. 1987); *Gould v. Schawlow*, 363 F.2d 908, 919 (CCPA 1966); MPEP § 2138.06. A lapse in diligence, however brief, defeats a claim of diligence. *See, e.g., In re Mulder*, 716 F.2d 1542, 1542-46 (Fed. Cir. 1983) (lack of reasonable diligence where no evidence provided for 2 day period); *D’Amico v. Koike*, 347 F.2d 867, 871 (CCPA 1965) (one month lapse); MPEP § 2138.06.

Corroboration is required to prove an inventor’s alleged diligence. *In re Jolley*, 308 F.3d 1317, 1328 (Fed. Cir. 2002). A “rule of reason” analysis is applied to determine whether the inventor’s diligence testimony has been corroborated. *D’Amico*, 347 F.2d at 871. A party alleging diligence must provide corroboration with evidence that is specific both as to facts and dates. *Kendall v.*

Searles, 173 F.2d at 993; *Gould*, 363 F.2d at 920; *see also* MPEP § 2138.06.

2. Patent Owner's Declarations Do Not Establish Conception.

Patent Owner's declarations fail to demonstrate the inventor was in possession of each claim limitation of the '077 or '850 patents. The McNally and Sanders declarations fail to even mention several elements of Challenged Claims, including, among others, the limitations: "menu categories," "menu items and modifiers," "real time interface," "cascaded sets of linked graphical user interface screens," "customized display layout unique to the wireless handheld computing device," and "wherein a cascaded set of linked graphic 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." While the exhibits to Patent Owner's declarations suggest there may have been a prototype of the Patent Owner's system in 1998, they do not provide detail sufficient to establish that the prototype included the elements of the Challenged Claims discussed above. Ex. 1012 (McNally Dec. at Exs. 1-4) at 558-563; (June 26, 2009 Rejection) at 427. Additionally, several of these exhibits (3, 5 and 6) are undated, and therefore fail to corroborate the date of Patent Owner's alleged conception for this additional reason.

3. Patent Owner's Declarations Do Not Establish Actual Reduction To Practice.

Likewise, Patent Owner's declarations and supporting evidence fail to

demonstrate the inventor reduced to practice the inventions claimed in the '077 patent prior to the filing date of the '850 patent. As discussed above, while the declarations and supporting exhibits suggest that prototypes of Patent Owner's system were developed in advance of various trade shows in 1998 and 1999, the declarations and supporting evidence fail to establish that any of these prototypes included at least the following claim limitations: "menu categories," "menu items and modifiers," "real time interface," "cascaded sets of linked graphical user interface screens," "customized display layout unique to the wireless handheld computing device," and "wherein a cascaded set of linked graphic 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." As is shown below, the prior art relied on in the Petition does disclose these missing limitations. Patent Owner's evidence is therefore insufficient to establish an actual reduction to practice.

4. Patent Owner's Declarations do not establish diligence

As established above, Blinn constituted a printed publication under 35 U.S.C. § 102(a) on April 27, 1999. Patent Owner's declarations and supporting evidence fail to demonstrate diligence during the entire critical period from April 27, 1999 until the patent application was filed on September 21, 1999, and therefore are insufficient to antedate Blinn.

First, Patent Owner fails to provide any cognizable evidence of any particular act (or even generalized activity) taken on any given day (or at any time) during this period to constructively reduce the '850 patent to practice through preparation of a patent application. The sole evidence regarding any such activity after July 1999 and before September 21, 1999, is the following wholly conclusory and completely uncorroborated statement by Mr. McNally:

Beginning in or about July 1999, I coordinated with our outside counsel to prepare a patent application directed to the presently claimed invention. To assist in preparing the application in a diligent manner, I spoke with outside counsel over the telephone, provided information used to prepare the application, exchanged information regarding the application with my co-inventors and worked with counsel to finalize and file the application. On September 21, 1999, our outside counsel filed the application in the U.S. Patent and Trademark Office (“USPTO”). Ex. 1012 at 371.

Mr. McNally’s declaration says nothing about the work performed by the patent attorney, when that work was performed, and is completely silent as to the extent of the patent attorney’s diligence (or lack of diligence) during this period and is therefore insufficient to establish diligence. *Kendall*, 173 F.2d at 993; *Gould*, 363 F.2d at 920; *In re Jolley*, 308 F.3d at 1328.

Second, there are numerous additional large gaps of time unaccounted for by any of Patent Owner’s Declarations during the critical period. For example, Mr.

McNally's supplemental declaration identifies April 19, 1999 and May 17, 1999 press releases relating to two strategic partnerships formed by Ameranth, but the declarations provide no evidence of any diligence toward either actual or constructive reduction to practice during the nearly one month period in between. Similarly, the supplemental declaration describes a May 22 National Restaurant Association tradeshow in Chicago and a June 17, 1999 partnership agreement between Ameranth and food.com, but provides no evidence of diligence in the nearly one month period between these dates. Nor does the supplemental declaration provide any evidence of diligence between the June 17, 1999 partnership agreement and a press release announcing this partnership nearly a month later on July 15, 1999. These repeated nearly one month gaps in time fail to demonstrate reasonable diligence towards reducing the invention to practice. *In re Mulder*, 716 at 1542-46; *Rieser*, 255 F.2d at 424; *Fitzgerald*, 268 at 766.

VIII. CLAIM CONSTRUCTION

In accordance with 37 C.F.R. § 42.304(b)(3), Petitioner provides the following statement regarding construction of the '850 patent claims.

A. Legal Standard

Claims in a CBM review of an unexpired patent are to be given their "broadest reasonable interpretation in light of the specification." 37 C.F.R. § 42.300(b). This standard is often referred to as "BRI."

B. Construction of the Terms Used in the Claims

Because the claim construction standard in this proceeding differs from that used in U.S. district court litigation, Petitioner expressly reserves the right to assert different claim construction positions under the standard applicable in district court for any term of the '850 patent in any district court litigation. Petitioner's proposed claim constructions for this proceeding are set forth below. Petitioner's claim constructions are further discussed in Ex. 1002 ¶¶ 69-91. Additionally, four district court claim construction decisions have been issued for the '850 patent and/or other patents in the same family: three in Case No. 2:07-cv-00271-TJW-CE (E.D. Tex.) (Ex. 1032), involving the '850 patent, the '325 patent, and 6,982,733 (Ex. 1005, the "'733 patent'"), and one in Case No. 2:10-CV-294-JRG-RSP (E.D. Tex.), involving the '850 patent and the '325 patent (Ex. 1033). Additionally, the Board has previously construed certain claim terms of the '850 claims in its decision in CBM2014-00015, and Petitioner adopts those constructions which the Board has previously construed for the '850 patent.

1. "Web page"

The Board previously construed this claim term as "a document, with associated files for graphics, scripts, and other resources, accessible over the internet and viewable in a web browser" in Ex. 1017 at 8. A "document" is "any self-contained piece of work created with an application program and, if saved on a

disk, given a unique filename by which it can be retrieved.” Ex. 1034 at 11; Ex. 1002 ¶ 73.

2. “applications” (claim 12)

This claim term should be construed to mean “sequences of instructions that can be executed on a computer that are designed to help people perform a specific task.” Ex. 1034 at 4 and 10 (definitions of “application” and “program”); *see also* Ex. 1002 ¶ 74.

3. “application program interface” (claim 12)

This claim term should be construed to mean “a set of routines used by an application program to direct the performance of procedures by the computer’s operating system or to communicate with another application program.” Ex. 1034 at 5; *see also* Ex. 1002 ¶ 75.

4. “communications control module” (claim 12)

This claim term should be construed to mean “a device used as an intermediary in transferring communications to and from the host computer to which it is connected.” Ex. 1034 at 7 (definition of “communications controller”); *see also* Ex. 1002 ¶¶ 76-78.

5. “database” (claim 12)

This claim term should be construed to mean “a file composed of records, each containing fields, together with a set of operations for searching, sorting, recombining and other functions.” Ex. 1034 at 8; *see also* Ex. 1002 ¶¶ 79-80.

6. “data are synchronized between the central database, the at least one wireless handheld computing device, at least one Web server and at least one Web page” (claim 12)

This claim term should be construed to mean “the same data is present in each of the central database, the at least one wireless handheld computing device, at least one Web server and at least one Web page at one time.” As asserted by Patent Owner during oral argument in CBM2014-00013, downloading a menu from one device to another device constitutes synchronization. Ex. 1035 at 31-32; *see also* Ex. 1002 ¶¶ 81-83. Similarly, Patent Owner’s infringement contentions dated July 22, 2013 concerning this claim element refer to “communications control software [that] interfaces with ... hospitality applications including online/mobile ticketing or reservations systems such as Fandango, StubHub, Ticketmaster, LiveNation, and Starwood, in providing a single point of entry into the Accused System, allows and facilitates synchronization and consistency of Passbook passes and associated data among at least one Web page (e.g., an email that allows a pass to be stored on an iPhone), at least one handheld device (e.g., and end user’s iPhone), and the iCloud.” Ex. 1060 at 43. Patent Owner should be held to a construction here that is consistent with these assertions.

7. The Preamble is Not Limiting

The preamble does not recite any structural components and does not serve as the antecedent basis for any terms recited in the body of the Challenged Claims.

Instead, the preamble merely sets forth the purpose (“information management and synchronous communication”) and intended use (“for generating and transmitting menus”) of the claimed invention. *See U.S. Bancorp v. Retirement Capital Access Mgt. Co.*, CBM2013-00014, Paper 33, at 14-15 (PTAB Aug. 22, 2014) (finding “computerized method” in preamble to be a statement of intended use and thus not a meaningful claim limitation). Thus, under the BRI, the preamble is not limiting.

IX. STATE OF THE ART PRIOR TO THE '850 PATENT

The state of the art prior to the '850 patent is discussed generally in Ex. 1002 ¶¶ 91-106. The techniques claimed in the '850 patent were all well known in the computer and hospitality industry well before the earliest effective filing date of the '850 patent. *See generally*, Ex. 1002 ¶¶ 91-327. For example, the concept of storing separate copies of a database at two or more sites (sometimes referred to as database replication) using both synchronous and asynchronous distributed database technologies was well known in the art. *See, e.g.*, Ex. 1026 at 423-24. It was further known to use different schemes to update/synchronize such replicated databases, including snapshot replication, near real-time replication, and pull replication. *Id.* at 424. Similarly, real time communications of selections made from a database (*e.g.*, airline reservations) was also well known in the art. *Id.* The transmission from a central database/server to a client device of formatted documents containing user-selectable choices (which are menus) was also well-

known in the art. *See, e.g.*, Ex. 1021 at 228, Fig. 5.33 and 233, Fig. 5.41. Accordingly, claim limitations such as “application and data are synchronized” and “integration of outside applications” were nothing new in the art at the time of the ’850 patent. *See generally*, Ex. 1002 ¶¶ 91-106.

The use of wireless handheld devices was also known in the computer and hospitality industries well before the ’850 application was filed. For example, a wireless handheld device from Micros systems known as the HHT (hand held terminal) had been in use in the Walt Disney World Village for taking beverage orders in the pool area and communicating those orders to the hotel’s point of sale system, the Micros 8700 hospitality management system, at least as early as January 1997. Ex. 1029 at 2. The use of such wireless handheld devices for taking and communicating orders from customers was known to shorten the time necessary for the servers to bring orders to customers. *Id.*

While the HHT communicated data in a proprietary format, wireless handheld devices capable of displaying word wide web pages were also known in the art. Ex. 1022 at 1075. These wireless handheld devices includes smartphones such as the Nokia 9000i Communicator and personal digital assistants such as the Apple Newton. Ex. 1022 at 1075. Also known in the art were wireless handheld personal computers such as the Novatel Contact that could be used to display web pages. Ex. 1065 at 52. It would have been obvious to one of ordinary skill in the

art to use such off-the-shelf wireless handheld devices to access web pages of any kind for any purpose, including accessing hospitality related web pages such as for placing restaurant orders and airline reservations. *See* Ex. 1002 ¶¶ 29-43, 109-21, 180-83, and 238-43.

Thus, all of the components and techniques of claims 12-16 of the '850 patent are in the prior art, and, as discussed below, where necessary, it would have been obvious to combine them in the manner recited in those claims. *Id.*

X. THERE IS A REASONABLE LIKELIHOOD THAT PETITIONER WILL PREVAIL WITH RESPECT TO AT LEAST ONE CLAIM OF THE '850 PATENT.

A petition for CBM review must demonstrate that “it is more likely than not that at least 1 of the claims challenged in the petition is unpatentable.” 35 U.S.C. § 324(a). This Petition meets that threshold. There is a reasonable likelihood that Petitioner will prevail in establishing that at least one of claims 12-16 of the '850 patent is unpatentable under 35 U.S.C. §§ 102 or 103 as explained below.

XI. DETAILED EXPLANATION OF THE GROUNDS FOR REJECTION

A detailed explanation of the pertinence and manner of applying the prior art references to claims 12-16 of the '850 patent is provided below in accordance with 37 C.F.R. §§ 42.304(b)(4) and 42.304(b)(5). Except as noted, the detailed explanation set forth below assumes that the claims of the '850 patent are construed consistent with the constructions set forth above. To the extent that any

limitation is deemed to be absent, whether as a result of claim construction or otherwise, such limitation would have been obvious over the cited art. *See* Ex. 1002 ¶¶ 29-43, 109-21, 180-83, and 238-43.

A. Challenge to Claims 12-16 Based on Inkpen, Nokia and Digestor.

1. Summary of Inkpen

Inkpen, which was not considered by the Patent Office during the original prosecution, was published in July 1998—more than one year prior to the application filing date of the '850 Patent. <http://catalogue.pearsoned.co.uk/educator/product/Information-Technology-for-Travel-and-Tourism/9780582310025.page>. Ex. 1037. Therefore, Inkpen is prior art under 35 U.S.C. § 102(b) because it was published prior to the effective filing date for the '850 Patent, and is also prior art under 35 U.S.C. § 102(a) based on its 1998 copyright date.

Inkpen is a book length survey of several known travel information systems. Although several such information systems are disclosed, for purposes of this Petition the information system developed by Marriott will be the focus. The Marriott system is discussed primarily at 229-234 of Inkpen, although certain components (i.e., the Thisco switch) are also discussed elsewhere. The Marriott information system is illustrated in figure 5.36 below:

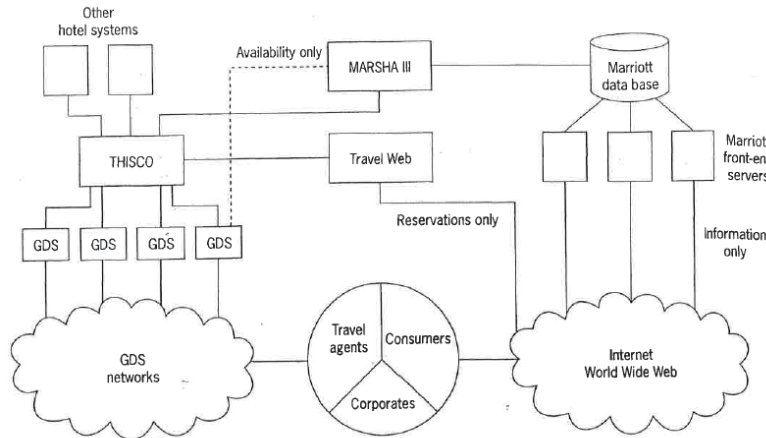


Figure 5.36 Marriott's internet connection

In this figure, the box labeled “MARSHA III” (hereinafter “MARSHA”) is a CRS (computerized reservation system) device that interacts with the storage device labeled “Marriott data base” to handle all reservations whether or not submitted from the Internet via the Travel Web server or from one of the GDSs (global distribution systems). Ex. 1021 at 230, col. 2, line 24 at 231, col. 1, line 20. The box labeled THISCO is a switch that acts as an access point for MARSHA and GDSs, which are typically used by travel agents and employ their own special protocols. *Id.* at 230, col. 2, lines 15-22. The THISCO switch also interfaces with the Travel Web Internet server/ booking engine website, which is shown as a separate box in Fig. 5.36 above. *Id.* The Travel Web server may be used by consumers to make reservations. *Id.* at 218, col.1, lines 35-40. In addition to the Travel Web server, a user may also connect to one of Marriott’s front end servers to access the Marriott.com website, which were new as of 1996. *Id.* at 229, col. 2, lines 37-43. A user can get certain information via the Marriott.com website (*e.g.*,

room rates, property descriptions, hotel addresses), but can only check availability and make reservations via a connection through the Marriott server to the Travel Web site to the THISCO switch and then to MARSHA. *Id.* at 230, col. 1, line 44-col. 2, line 49; Ex. 1002 ¶¶ 110-11.

2. Summary of Digester.

Digester, which was also not considered by the Patent Office during the original prosecution of the '850 patent, was published in 1997 (Ex. 1022 at 1075), more than one year prior to the effective filing date of the '850 Patent. Digester is therefore prior art under 35 U.S.C. § 102(b). Digester describes “a software system which automatically re-authors arbitrary documents from the world-wide web to display on small screen devices such as PDAs and cellular phones, providing device independent access to the web.” Ex. 1022 at Abstract. An example of a reauthored web document that has been divided to display as multiple cascaded screens on a small screen device is shown in Fig. 3 reproduced below:

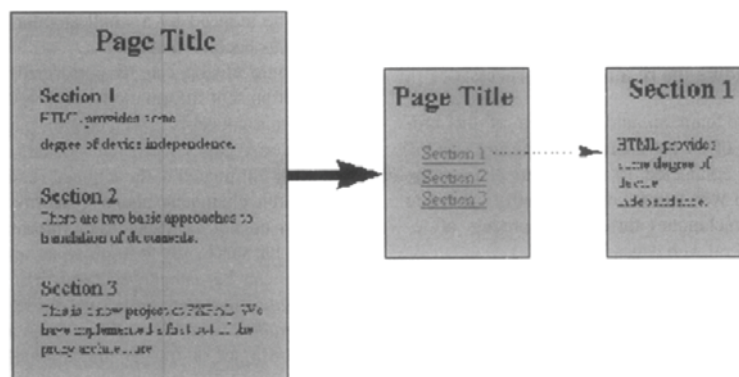


Fig. 3.

Digester discloses four approaches for formatting documents for small

screens, including: (1) device-specific authoring, (2) multiple-device authoring, (3) client-side navigation, and (4) automatic re-authoring. *Id.* at 1076. Automatic re-authoring can be performed at either the server from which the document is served, the client, or an intermediate device. *Id.*; Ex. 1002 ¶ 112.

3. Summary of Nokia

Nokia, which was also not considered by the Patent Office during the original prosecution of the '850 patent, was published in 1997 (Ex. 1023 at 2), which is more than one year prior effective filing date of the '850 Patent. Nokia is therefore prior art to the '850 patent under 35 U.S.C. § 102(b).

Nokia is an owner's manual for the Nokia 9000i Communicator. *Id.* at 7. The Nokia 9000i Communicator, specifically mentioned in Digester (Ex. 1022 at 1075), includes "a mobile phone, messaging device, Internet access terminal, and palmtop organizer all in one compact unit" with the phone interface on the device cover and the other interfaces under the device cover as shown below:



Figure 1-1: Phone interface



Figure 1-2: Communicator interface

Ex. 1023 at 7. The 9000i Communicator included a web browser for viewing

world wide web pages, including HTML web pages. *Id.* at 63; Ex. 1002 ¶ 113.

4. Patentability Challenge Based on Inkpen, Nokia, and Digestor.

It would have been obvious to a POSITA to combine Inkpen, Nokia and Digestor by using the Nokia 9000i Communicator device disclosed in Nokia to access Travel Web pages such as those disclosed in Inkpen to make, e.g., hotel reservations. Ex. 1002 ¶¶ 109-79. It should be noted that claims 12-16 do not require any reformatting of any menus or other data for a smaller screen on a wireless handheld device, do not require that the wireless handheld device utilize a hospitality application different from a Web page rendered by a browser and do not otherwise preclude the hospitality application on the wireless handheld device from being a Web page rendered by a browser. Thus, the “wireless handheld device” limitations of the Challenged Claims would be satisfied by a handheld device that had wireless internet access and a web browser capable of rendering the pages on the Travel Web site. Such devices include the Nokia 9000i Communicator (Ex. 1023 at 61) as well as the Samsung Duett, Sharp TQ-G700 and Sharp MI-10 (Ex. 1022 at 1075), and the Novatel Contact (Ex. 1065 at 52). Ex. 1002 ¶ 115. It should further be noted that nothing in the claims of the ’850 patent preclude both the “web page” and the “wireless handheld device” from being implemented as wireless handheld devices with browsers, and this affects all grounds raised for patentability challenges. *Id.*

Even if the Challenged Claims were to be interpreted as requiring the reformatting of data for a small screen on a wireless handheld device, it would have been obvious to a POSITA to configure the Travel Web server of Inkpen to modify web pages for the smaller screen size of a wireless hand-held device such as the Nokia 9000i Communicator in view of Digestor. Ex. 1002 ¶ 116. For example, as Digestor discloses (Ex. 1022) at 1076, col. 1, lines 6-9, a POSITA would have known that it was possible to author Web pages for specific devices including the Nokia 9000i Communicator. Ex. 1002 ¶ 116. Alternatively, a POSITA would have known how to employ Digestor's automatic re-authoring techniques to transform a World Wide Web page for given display characteristics of a particular device such as the Nokia 9000i Communicator so that a Web page could be more appropriately displayed on that device. *Id.*

a) The “central database” of the claims is mapped onto the combination of MARSHA CRS and the Marriott database storage device. This is proper as BRI of “database” includes not only data/records but routines to search, sort and recombine the data/records. Additionally, the '850 patent describes the central database as a “backoffice server” (Ex. 1001 at 2:24), and it is well known to a POSITA at the time of the '850 patent that a server includes both a computer and one or more storage devices, which can be as simple as a single hard disk or as

complex as a SAN (storage area network) including multiple interconnected storage devices. Ex. 1002 ¶ 117a.

b) The “communications control module” is mapped onto the THISCO switch. Ex. 1002 ¶ 117b.

c) The “outside applications” are mapped onto the GDSs. Ex. 1002 ¶ 117c.

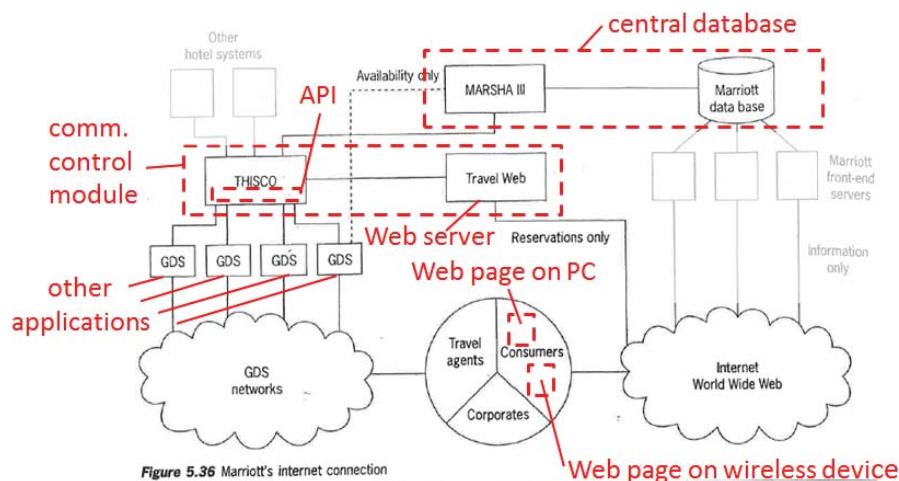
d) The “application program interface” is mapped onto the code on the THISCO switch that translates the messages and commands in the various GDS protocols such as the TPF protocol to the format and protocol accepted by MARSHA. Ex. 1002 ¶ 117d.

e) The Web server is mapped onto the Travel Web server. Ex. 1002 ¶ 117e.

f) The Web page is an instance of a page from the Travel Web server rendered on any end user device such as a personal computer, laptop, PDA or smartphone. Ex. 1002 ¶ 117f.

Several variations to the system of figure 5.36 would have been obvious to a POSITA at the time of the alleged invention of claims 12-16. For example, it would have been obvious to a POSITA that the dotted line direct connection from one of the GDSs to the MARSHA CRS was optional and therefore could be omitted from the system of Figure 5.36. Ex. 1002 ¶ 118. Alternatively, the one GDS that was directly connected to the MARSHA could itself have been omitted from the system of figure 5.36. *Id.* Additionally, Inkpen discloses that the

integration of the Marriott front end servers with the MARSHA system and Marriott database was relatively new. Ex. 1021 at 229, col. 2, lines 37-43. It would have been obvious to a POSITA that the Marriott front end servers could be eliminated from the system of figure 5.36 such that all internet transactions would originate from clients connected to the Travel Web server. the Ex. 1002 ¶ 118. An annotated version of figure 5.36 indicating the aforementioned modifications and mapping is set forth below:



Note that claims 12-16 do not require any reformatting of any menus or other data for a smaller screen on a wireless handheld device, and do not require that the wireless handheld device utilize a hospitality application different from a Web page rendered by a browser and do not otherwise preclude the hospitality application on the wireless handheld device from being a Web page rendered by a browser. Thus, the “wireless handheld device” limitations of claim 12 would be satisfied by a handheld device that had wireless internet access and a web browser

capable of rendering the pages on the Travel Web site. Such devices include the Nokia 9000i Communicator as well as the Samsung Duett, Sharp TQ-G700 and Sharp MI-10. Ex. 1023 at 61-65; Ex. 1002 ¶ 119; and Ex. 1022 at 1075 .

In any event, it would have been obvious to a POSITA to configure the Travel Web server to modify web pages for the smaller screen size of a wireless hand-held device such as the Nokia 9000i Communicator in view of Digestor. Ex. 1002 ¶ 120. For example, as disclosed Digestor at 1076, col. 1, lines 6-9, a POSITA would have known that it was possible to author World Wide Web pages for specific devices including the Nokia 9000i Communicator. Ex. 1002 ¶ 120. Alternatively, a POSITA would have known how to employ automatic re-authoring techniques to transform a World Wide Web page for given display characteristics of a particular device such as the Nokia 9000i Communicator so that a Web page could be more appropriately displayed on that device. Ex. 1022 at 1076, Ex. 1021 at col. 2, ll. 28-42; Ex. 1002 ¶ 120.

The combination of Inkpen, Nokia, and Digestor renders claims 12-16 of the '850 patent obvious under 35 U.S.C. § 103 (pre-AIA) as shown in the following claims charts.¹ Ex. 1002 ¶ 121.

Claim 12	Inkpen, Nokia and Digestor
12. An information management and	Inkpen discloses a communications system utilized by Marriott for hotel reservations which may be made via the

¹ Any bolding only appears in original. Bolding and underlining means emphasis added.

Claim 12	Inkpen, Nokia and Digester
<p>synchronous communications system for use with wireless handheld computing devices and the internet comprising:</p>	<p>Internet:</p> <p>“Marriott has been highly successful in using technology to market and sell hotel rooms and related services to customers around the world. The cornerstone of this distribution activity is <u>Marriott’s central reservation system</u>, MARSHA (you can find more information on MARSHA in Marriott’s interconnection to GDSs in Chapter 3).</p> <p>* * * *</p> <p>However, when an Internet user wishes to view availability or make a booking, the server routes the enquiry via a third route – a direct connection to TravelWeb. Messages passing down a direct connection to the TravelWeb Internet booking engine are routed to the Thisco switch, which passes them on to MARSHA. The MARSHA system checks its <u>room inventory data base</u> and formulates a response, just as though it was a regular Thisco/TravelWeb reservation message. However, in this case the response is routed back to the Marriott Internet Web servers which route the message to the consumer.</p> <p>* * * *</p> <p>The beauty of this approach is that it maintains the stand-alone integrity of Thisco and TravelWeb. Neither of these systems needs to hold a data base of rates or rooms. <u>All data and inventory records continue to be held by MARSHA. This is an important point because it eliminates any problems that would undoubtedly arise from duplicating Marriott’s hotel information on other servers.</u> Another benefit is that it saves Marriott from having to develop a complex and costly booking interface to MARSHA.” Ex. 1021 at 229-231.</p> <p>Nokia and Digester disclose the use of wireless handheld devices for displaying world wide web pages. Ex 1022 at 1076; Ex. 1023 at 61-65. <i>See also</i> Ex. 1002 ¶¶ 122-25.</p>

It would have been obvious to one of ordinary skill in the art that the Nokia 9000i Communicator and the wireless handheld devices disclosed in Digestor could have been used to access the web pages of the Travel Web site. Ex. 1002 ¶ 125; Ex. 1022 at 1080.

Claim 12	Inkpen, Nokia and Digestor
a. a central database containing hospitality applications and data,	<p>The communications system utilized by Marriott for hotel reservations includes a central database containing hospitality applications and data including the MARSHA III computerized reservation system and the storage device associated with the MARSHA system:</p> <p>“Marriott has been highly successful in using technology to market and sell hotel rooms and related services to customers around the world. The cornerstone of this distribution activity is <u>Marriott’s central reservation system</u>, MARSHA (you can find more information on MARSHA in Marriott’s interconnection to GDSs in Chapter 3).</p> <p>* * * *</p> <p>However, when an Internet user wishes to view availability or make a booking, the server routes the enquiry via a third route – a direct connection to TravelWeb. Messages passing down a direct connection to the TravelWeb Internet booking engine are routed to the Cisco switch, which passes them on to MARSHA. The MARSHA system checks its <u>room inventory data base</u> and formulates a response, just as though it was a regular Cisco/TravelWeb reservation message. However, in this case the response is routed back to the Marriott Internet Web servers which route the message to the consumer.</p> <p>* * * *</p> <p>The beauty of this approach is that it maintains the stand-alone integrity of Cisco and TravelWeb. Neither of these systems needs to hold a data base of rates or rooms. <u>All data and inventory records continue to be held by MARSHA. This is an important point because it</u></p>

Claim 12	Inkpen, Nokia and Digestor
	<u>eliminates any problems that would undoubtedly arise from duplicating Marriott's hotel information on other servers.</u> Another benefit is that it saves Marriott from having to develop a complex and costly booking interface to MARSHA.” Ex. 1021 at 229-231. <i>See also</i> Ex. 1002 ¶¶ 126-27.
b. at least one wireless handheld computing device on which hospitality applications and data are stored,	The Nokia 9000i Communicator [Ex. 1023 at 61-65] discloses a wireless handheld computing device with a web browser. Ex. 1002 ¶ 89. Digestor discloses wireless handheld devices such as the Nokia 9000i cell phone, the Sony MagicLink, the Apple Newton with the AppPen NetHopper browser, and the Sharp MI-10. Ex. 1022 at 1075. <i>See also</i> Ex. 1002 ¶¶ 128-30.

It would have been obvious to a POSITA to configure the Travel Web server to modify web pages for the smaller screen size of a wireless hand-held device in view of Digestor. Ex. 1022 at 1076; Ex. 1002 ¶ 130. A POSITA would understand that Travel Web pages being rendered by a browser on a handheld device are data and hospitality applications within the meaning of the '850 patent. Ex. 1002 ¶ 130. This is because the combination of the HTML files associated with the Travel Web pages and the browser together comprise “sequences of instructions that can be executed on a computer that are designed to help people perform a certain type of work,” in this case making reservations. *Id.* Additionally, a POSITA would understand that web pages such as the Travel Web pages include data. *Id.* Additionally, the requirement in claim 12 that the Web page have hospitality applications and data stored thereon further supports the

conclusion that Travel Web pages being rendered by a browser on a handheld device are data and hospitality applications. *Id.*

Claim 12	Inkpen, Nokia and Digestor
<p>c. at least one Web server on which hospitality applications and data are stored,</p>	<p>The communications system utilized by Marriott for hotel reservations includes a Travel Web server on which hospitality applications and data are stored. Ex. 1002 ¶ 131.</p> <p>“The <u>TravelWeb Internet server</u> is linked by high speed telecommunications lines to Thisco’s Ultraswitch computer (see Pegasus in Chapter 4 for more details on this major hotel industry switch). It is through this link that consumers can book a hotel room from 14,000 properties that are part of 16 chains. The actual booking process is carried out between the consumer and the hotel chain’s computer system, with no intermediate GDS involved at all. This seamless connectivity is about as close to a direct point-of-sale relationship with a prospective guest that a hotel could reasonably expect to achieve. Once a booking has been made, consumers may choose to guarantee their rooms by using TravelWeb’s on-line plastic card authorization facility. TravelWeb therefore provides its participating hotel customers with a truly on-line confirmed booking service that is available to customers all around the world.” Ex. 1021 at 218-19.</p> <p>“One of the other main functions of the <u>TravelWeb server</u> is to act as a translator between: (a) classical text-based computer systems that support TravelWeb’s host suppliers; and (b) the Internet’s HTML to which all Internet users are connected. <u>This translation function allows TravelWeb’s host suppliers to communicate directly with the PCs of home and business consumers around the world.</u>” Ex. 1021 at 218.</p> <p>Digestor discloses a server that automatically re-authors documents for display on small screen devices. Ex. 1022 at 1076. <i>See also</i> Ex. 1002 ¶¶ 131-35.</p>

A POSITA would have understood that the Travel Web server pages are hospitality applications and data for the reasons discussed above in connection with claim element 12.b discussed above. Ex. 1002 ¶ 135.

Claim 12	Inkpen, Nokia and Digestor
d. at least one Web page on which hospitality applications and data are stored,	<p>The communications system utilized by Marriott for hotel reservations includes consumer devices such as PCs (personal computers) on which hospitality applications and data in the form of Travel Web pages rendered by a browser are stored. Ex. 1002 ¶136.</p> <p>“One of the other main functions of the <u>TravelWeb server</u> is to act as a translator between: (a) classical text-based computer systems that support TravelWeb’s host suppliers; and (b) the Internet’s HTML to which all Internet users are connected. <u>This translation function allows TravelWeb’s host suppliers to communicate directly with the PCs of home and business consumers around the world.</u>” Ex. 1021 at 218. <i>See also</i> Ex. 1002 ¶¶ 136-38.</p>

A POSITA would have understood that Travel Web pages being rendered by a browser on a handheld device are data and hospitality applications within the meaning of the ’850 patent for the reasons discussed above in connection with claim element 12.b. Ex. 1002 ¶ 138.

Claim 12	Inkpen, Nokia and Digestor
e. an application program interface, and	<p>The communications system utilized by Marriott for hotel reservations includes a THISCO switch. Inkpen at Fig. 5.36. The THISCO switch includes an API for communicating with other applications: “On the demand side, the THISCO switch communicates with all major GDSs using the proprietary message format of each one.” Ex. 1021 at 264, col. 1, ll. 15-18. <i>See also</i> Ex. 1002 ¶¶ 139-40.</p>

A POSITA would have considered the software in the THISCO switch that communicates with all major GDSs using their proprietary message formats to

constitute or include an application program interface for interfacing with the GDSs. Ex. 1002 ¶ 140.

Claim 12	Inkpen, Nokia and Digestor
f. a communications control module,	<p>The communications system utilized by Marriott for hotel reservations includes a THISCO switch. Inkpen at Fig. 5.36. The THISCO switch is also referred to as Ultraswitch:</p> <p>“The required solution would support the development of a single interface linking each hotel system to the <u>common switch</u>. On the distribution side of the switch, a standard GDS link would be developed that could be shared by all hotel participants. <u>Thisco</u> was formed in 1988 when 15 major hotel companies, including <u>Utell International</u>, Hyatt, Forte, Mariott, as well as most other leading hotel companies in the USA together with Murdoch Electronic Publishing (which later became Reed Travel Group), agreed to invest in a hotel industry switching company.” Ex. 1021 at 163-164.</p> <p>“The newly formed Thisco developed a computerized switch called <u>Ultraswitch</u>. The way this switch works is very much like a transparent link between the travel agent and the participating hotel. The switch has a supply and demand side. On the supply side, it connects to hotel inventory systems and translates their messages and commands into a standard Thisco format that is used for all processing within Ultraswitch. On the demand side, the Thisco switch communicates with all major GDSs using the proprietary message format of each one. In many ways the Ultraswitch computer acts as a sort of super-translator between the various hotel systems and the major GDSs. It provides full support for all GDS hotel functionality, including bookings, status messages, rate updates and seamless availability.” Ex. 1021 at 164.</p> <p><u>“Ultraswitch</u> uses technology based on a scalable client/server computer running the UNIX operation system and a relational data base management system (RDMS). It uses high speed digital data circuits carrying between 56 and 64 kb/s of data and supports many different telecommunications protocols including</p>

Claim 12	Inkpen, Nokia and Digestor
	<p>SNA, X25, SLC and TCP/IP.” Ex. 1021 at 164.</p> <p>“Once the travel agent has selected a property for a customer, stage two commences. This involves the creation of a booking request entry by the travel agent, using the GDS terminal. The resulting reservations message is transmitted from the GDS, via the <u>Ultraswitch</u> to the hotel system. When the reservation message is received by the hotel system, it checks the required availability and sends a response back to the travel agent via the <u>Ultraswitch</u> and the GDS. This two-way message flow continues until either a booking is made or the travel agent sign-off, i.e. the transaction is ended.” Ex. 1021 at 164.</p> <p>“The primary role of TravelWeb is to provide the technologically sophisticated traveller with a full-scale travel service via the Internet. Hotel bookings are serviced on a one-to-one basis with the consumer using <u>Thisco’s Ultraswitch technology</u> to link him/her directly to the hotel system of his/her choice. Airline ticket sales are fulfilled with the participation of a USA based travel agent.” Ex. 1021 at 216.</p> <p>“TravelWeb first appeared on the Internet in October 1994 when it was positioned as an online catalogue of hotel products aimed at the travel industry. In December 1995 a pilot version of the hotel booking engine was Beta tested by a controlled group of Internet users. This was the first time that <u>Thisco’s Ultraswitch hotel booking system</u> had been connected to the Internet.” Ex. 1021 at 216.</p> <p>“The hotel booking engine The TravelWeb Internet server is linked by high speed telecommunications lines to <u>Thisco’s ultraswitch computer</u> (see Pegasus and Chapter 4 for more details on this major hotel industry switch). It is through this link that consumers can book a hotel room from 14,000 properties that are part of 16 chains. The actual booking process is carried out between the consumer and the hotel chain’s computer system, with no intermediate GDS involved at all. This seamless connectivity is about as close to a direct point-of-sale relationship with a prospective guest that a hotel could</p>

Claim 12	Inkpen, Nokia and Digestor
	<p>reasonably expect to achieve. Once a booking has been made, consumers may choose to guarantee their rooms by using TravelWeb's on-line plastic card authorization facility. TravelWeb therefore provides its participating hotel customers with a truly on-line confirmed booking service that is available to customers all around the world." Ex. 1021 at 218-219.</p> <p>"The Cisco switch (which is explained in more detail in Chapter 4 in the section on distribution systems), was designed with an in-built capability to handle both TPF links to hotel systems and, via its Travel Web booking engine, TCP/IP for Internet traffic." Ex. 1021 at 230. <i>See also</i> Ex. 1002 ¶¶ 141-50.</p>

Nothing in claim 12 requires the communications module to be comprised of a single physical device. In any event, although THISCO chose to implement the Ultraswitch and the Travel Web server as separate devices connected by high speed communications lines, it would have been obvious to a POSITA at the time of the '850 patent that this was a design choice and that the Ultraswitch and the Travel Web server could have been implemented as a single device. Ex. 1002 ¶ 150. A POSITA would have been motivated to do so in order to avoid the cost and complexity of the high speed phone lines that linked the Ultraswitch and the Travel Web server. *Id.* Additionally, the final citation in chart above from Inkpen at 230 suggests to a POSITA implementation of the THISCO Ultraswitch and Travel Web server as a single system. *Id.*

Claim 12	Inkpen, Nokia and Digestor
wherein applications and	In the communications system utilized by Marriott for hotel reservations, reservations information is maintained in the MARSHA system and distributed to Web pages on PCs or handheld devices:

Claim 12	Inkpen, Nokia and Digestor
<p>data are synchronized between the central data base, at least one wireless handheld computing device, at least one Web server and at least one Web page;</p>	<p>“Marriott has been highly successful in using technology to market and sell hotel rooms and related services to customers around the world. The cornerstone of this distribution activity is <u>Marriott’s central reservation system</u>, MARSHA (you can find more information on MARSHA in Marriott’s interconnection to GDSs in Chapter 3).</p> <p>****</p> <p>However, when an Internet user wishes to view availability or make a booking, the server routes the enquiry via a third route – a direct connection to TravelWeb. Messages passing down a direct connection to the TravelWeb Internet booking engine are routed to the Thisco switch, which passes them on to MARSHA. The MARSHA system checks its <u>room inventory data base</u> and formulates a response, just as though it was a regular Thisco/TravelWeb reservation message. However, in this case the response is routed back to the Marriott Internet Web servers which route the message to the consumer.</p> <p>****</p> <p>The beauty of this approach is that it maintains the stand-alone integrity of Thisco and TravelWeb. Neither of these systems needs to hold a data base of rates or rooms. <u>All data and inventory records continue to be held by MARSHA. This is an important point because it eliminates any problems that would undoubtedly arise from duplicating Marriott’s hotel information on other servers.</u> Another benefit is that it saves Marriott from having to develop a complex and costly booking interface to MARSHA.” Ex. 1021 at 229-231. <i>See also</i> Ex. 1002 ¶¶ 151-53.</p>

It would have been obvious to a POSITA that when a PC and a wireless handheld device are both connected to the Travel Web server and viewing pages for the same hotel property, the reservations data maintained on MARSHA would be synchronized (as that term is properly construed) between MARSHA, the Travel Web server, and the Travel Web pages rendered on PCs and the wireless handheld devices such as the Nokia 9000i. Ex. 1002 ¶ 153.

Claim 12	Inkpen, Nokia and Digestor
wherein the application program interface enables integration of outside applications with the hospitality applications and	The THISCO switch includes an API for communicating with other applications: “On the demand side, the THISCO switch communicates with all major GDSs using the proprietary message format of each one.” Ex. 1021 at 264, col. 1, ll. 15-18. <i>See also</i> Ex. 1002 ¶¶ 154-55.

The software in the Thisco switch that accepts messages from the major GDSs in their respective proprietary message formats is an applications program interfaces (i.e., they integrate with the application programs running on the respective GDSs). Ex. 1002 ¶ 155. The API enables integration of the outside applications with the hospitality applications in that the API allows the other applications to make room reservations via the MARSHA system and such reservations will be reflected in MARSHA as well as on the Travel Web server and Web pages downloaded to customer PCs and wireless handheld devices. *Id.*

Claim 12	Inkpen, Nokia and Digestor
wherein the communications control module is an interface between the hospitality applications and any other communications protocol.	<p>In the communications system utilized by Marriott for hotel reservations, the Travel Web internet booking engine of the THISCO switch is an interface between the TCP/IP protocol employed by the hospitality applications on the Travel Web server, the Web page on the PC and the wireless handheld devices and the protocol employed by the MARSHA CRS: “Its MARSHA system is based on operating software called transaction processing facility (TPF), which runs on an IBM mainframe. This is totally incompatible with the TCP/IP communications protocols used by the Internet.</p> <p>* * * *</p> <p>To build its own Internet booking engine with an on-line interface to MARSHA could be done from a technical viewpoint, however, it would be quite costly . . . So, in the meantime, what was the answer to Marriott’s Internet book</p>

	<p>problem? Well, the answer was a very pragmatic decision taken by Marriott management, which was to use the Cisco hotel switch as the interface to MARSHA. The Cisco switch (which is explained in more detail in Chapter 4 in the section on distribution systems), was designed with an in-built capability to handle both TPF links to hotel systems and, via its Travel Web booking engine, TCP/IP for Internet traffic.” Ex. 1021 at 230. <i>See also</i> Ex. 1002 ¶¶ 156-57.</p>
Claim 13	Inkpen, Nokia and Digstor
13. The information management and synchronous communications system of claim 12	See claim 12 of the ’850 patent above. <i>See also</i> Ex. 1002 ¶ 158.
wherein the communications control module provides a single point of entry for all hospitality applications and	<p>“The Cisco switch (which is explained in more detail in Chapter 4 in the section on distribution systems), was designed with an in-built capability to handle both TPF links to hotel systems and, via its Travel Web booking engine, TCP/IP for Internet traffic.” Ex. 1021 at 238, col. 2, ll. 18-23. <i>See also</i> Ex. 1002 ¶ 159.</p>
wherein the single point of entry allows the synchronization of at least one wireless handheld computing device and at least one Web page with the central database so that at least one handheld device, at least one Web page and central database are consistent.	<p>In the communications system utilized by Marriott for hotel reservations, reservations information is maintained in the MARSHA system and distributed to Web pages on PCs or handheld devices:</p> <p>“Marriott has been highly successful in using technology to market and sell hotel rooms and related services to customers around the world. The cornerstone of this distribution activity is <u>Marriott’s central reservation system</u>, MARSHA (you can find more information on MARSHA in Marriott’s interconnection to GDSs in Chapter 3).</p> <p>* * * *</p> <p>However, when an Internet user wishes to view availability or make a booking, the server routes the enquiry via a third route – a direct connection to TravelWeb. Messages passing down a direct connection to the TravelWeb Internet booking engine are routed to the Cisco switch, which passes them on to MARSHA. The MARSHA system checks its <u>room inventory data base</u> and formulates a response, just as though it was a regular Cisco/TravelWeb reservation message. However, in this case the response is routed back to the Marriott Internet Web servers which route the message to the consumer.</p>

	<p>* * * *</p> <p>The beauty of this approach is that it maintains the stand-alone integrity of Thisco and TravelWeb. Neither of these systems needs to hold a data base of rates or rooms. <u>All data and inventory records continue to be held by MARSHA. This is an important point because it eliminates any problems that would undoubtedly arise from duplicating Marriott’s hotel information on other servers.</u> Another benefit is that it saves Marriott from having to develop a complex and costly booking interface to MARSHA.” Inkpen at 229-231. <i>See also</i> Ex. 1002 ¶¶ 160-62.</p>
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See discussion following first wherein clause of claim 12 in the chart above.

Claim 14	Inkpen, Nokia and Digestor
14. The information management and synchronous communications system of claim 13	See claim 13 of the '850 patent above. <i>See also</i> Ex. 1002 ¶ 163.
wherein information entered on at least one Web page and transmitted over the internet is automatically communicated to the central database and at least one wireless handheld computing device.	See the second wherein clause of claim 13 above. <i>See also</i> Ex. 1002 ¶¶ 164-68.

Because the MARSHA CRS maintains all data and inventory records, it would have been obvious to one of ordinary skill in the art that information entered on a Travel Web page on a user’s PC, for example a reservation of a last vacant room of a particular type or category, would automatically be entered into the MARSHA CRS database and would automatically be reflected (*e.g.*, in the form of a “sold out” indication) in future downloads of Web pages for that property, including Web pages downloaded to wireless handheld devices. Ex. 1002 ¶ 167.

Additionally, the Web page of claim 14 could be a Travel Web page for room reservations being rendered on a wireless handheld device. In that instance, it would have been obvious to one of ordinary skill in the art that information pertinent to a reservation entered on a Travel Web page (*e.g.*, the user's name, dates of a room reservation, etc.) would be automatically communicated to the MARSHA CRS and a confirmation/checkout Web page including the same information would be automatically sent back to the wireless handheld device on which reservations page had been rendered. Ex. 1002 ¶ 168. Such confirmation/checkout pages were widely well known in the art at the time of the '850 patent. *Id.*

Claim 15	Inkpen, Nokia and Digestor
15. The information management and synchronous communications system of claim 13	See claim 13 of the '850 patent above. <i>See also</i> Ex. 1002 ¶ 169.
wherein information entered on at least one wireless handheld computing device is automatically communicated to the central database and at least one Web page.	See the second wherein clause of claim 13 above. <i>See also</i> Ex. 1002 ¶¶ 170-74.

Because the MARSHA CRS maintains all data and inventory records, it would have been obvious to one of ordinary skill in the art that information entered on a Travel Web page via a wireless handheld device, for example a reservation of a last vacant room of a particular type or category, would automatically be entered into the MARSHA CRS database and would automatically be reflected (*e.g.*, in the

form of a “sold out” indication) in future downloads of Web pages for that property, including Web pages downloaded to a user’s PC. Ex. 1002 ¶ 173.

Additionally, the Web page of claim 15 could be a Travel Web page for room reservations being rendered on a wireless handheld device. In that instance, it would have been obvious to one of ordinary skill in the art that information pertinent to a reservation entered on a Travel Web page (*e.g.*, the user’s name, dates of a room reservation, etc.) would be automatically communicated to the MARSHA CRS and a confirmation/checkout Web page including the same information would be automatically sent back as a Web page to the wireless handheld device on which reservation had been made. Ex. 1002 ¶ 174. Such confirmation/checkout pages were widely well known in the art at the time of the ’850 patent. *Id.*

Claim 16	Inkpen, Nokia and Digester
16. The information management and synchronous communications system of claim 12	See claim 12 of the ’850 patent above. <i>See also</i> Ex. 1002 ¶ 175.
wherein the applications and data are synchronized by digital data transmission between the central database, at least one wireless handheld computing device, at least one Web server and at least one Web page.	See the first wherein clause of claim 12 above. <i>See also</i> Ex. 1002 ¶¶ 176-79.

The communications between the MARSHA CRS, the wireless handheld device, the Web server and the Web page are inherently digital. Ex. 1002 ¶ 179. For example, Web servers and Web pages communicate using TCP/IP, which is a

digital protocol. *Id.* Furthermore, digital cellular communications were known at the time. *Id.*; Ex. 1001 at 1:29-32. In any event, it would have been obvious to one of ordinary skill in the art that data transmissions of claim 12 would be digital data transmissions. Ex. 1002 ¶ 179.

B. Challenge to Claims 12-16 Based on DeLorme.

1. Summary of DeLorme

U.S. Pat. No. 5,948,040 (Ex. 1024, “DeLorme”), which was not considered by the Patent Office during the original prosecution of the ’850 patent, was filed on February 6, 1997 and issued on September 7, 1999. DeLorme is therefore prior art under pre-AIA 35 U.S.C. § 102(a).

DeLorme discloses a system for making travel arrangements and planning travel activities, called Travel Reservation and Information Planning Systems, or TRIPS. *See, e.g.* Ex. 1024 at 1:28-36; 14:24-42. The TRIPS system is a “completely integrated system enabling an individual to plan, review, locate, schedule and select or execute customized or personalized travel arrangements and activities in association with map displays or other output of travel routes, chronological events, diverse travel topics and geographic points of interests along such routes.” Ex. 1024 at 1:32-43. Ex. 1002 ¶180.

In the TRIPS system, travel and planning related data and information are stored in a centralized relational database. *Id.* at 17:7:13; *see also* 32:1-7. The

TRIPS system can be accessed by users using a variety of different types of devices using various communications protocols. For example, DeLorme discloses that the TRIPS system may be accessed “entirely online” by means of an Internet web site. *Id.* at 14:43-47. Alternatively, the TRIPS system may be accessed by users “on the go” using wireless communication units, such as wireless handheld devices. *Id.* at 72:13-19; 71:61-72:2. DeLorme discloses that whether the user accesses the system online or via a wireless handheld device, the user can access updated (*i.e.*, synchronized) “real time” or “on the spot” travel information. *Id.* at 14:24-42; 72:37-43. Ex. 1002 ¶ 181

2. Patentability Challenge Based on DeLorme.

DeLorme renders obvious claims 12-16 under 35 U.S.C. § 103 (pre-AIA) as shown in the following claims charts. Ex. 1002 ¶¶ 182-83.

Claim 12	DeLorme
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Claim 12	DeLorme
<p>12. An information management and synchronous communications system for use with wireless handheld computing devices and the internet comprising:</p>	<p>DeLorme discloses an information management and synchronous communications system for making travel arrangements and planning travel activities, called Travel Reservation and Information Planning Systems, or TRIPS. <i>See, e.g.</i> Ex. 1024 at 1:28-36; 14:24-42.</p> <p>DeLorme discloses that users may interact with updated TRIPS data using the internet or a wireless handheld computing device. For example, DeLorme discloses: “Alternatively, all TRIPS functions, data and services can be provided entirely online (i.e. without significant stand-alone software components)—for example, from a central TRIPS service bureau, <u>or by means of a TRIPS Internet World Wide Web Site.</u>” <i>Id.</i> at 14:43-47.</p> <p>“FIG. 9 illustrates an important alternative or additional embodiment of TRIPS—that permits mobile users 901, at remote locations (for example, en route in vehicles or on foot), two-way access by wireless communications 903 to engage the novel travel reservation information planning system of one or more TRIPS 904 communications facilities or service bureaus. FIG. 9 includes <u>a wireless communication unit or WCU 907, typically hand-held 906</u> or mounted or used in a vehicle 905 like an automobile.” <i>Id.</i> at 71:61-72:2. <i>See also</i> Ex. 1002 ¶¶ 184-87.</p>
<p>a. a central database containing hospitality applications and data,</p>	<p>DeLorme discloses a relational database for storing TRIPS hospitality data:</p> <p>“Preferred TRIPS embodiments respond with interactive processing to these "user friendly" travel planning inquiries by sets of operations or sequences of functions which retrieve, focus, and integrate characteristic travel information within TRIPS Subsystems for processing geographical, topical, temporal and accounting data records organized as a <u>state-of-the-art relational database.</u>” Ex. 1024 at 17:7-13; <i>see also</i> 32:1-7.</p> <p>DeLorme further discloses that the TRIPS database includes hospitality applications, such as software for managing hospitality data in the TRIPS database:</p>

Claim 12	DeLorme
	<p>“FIG. 3 is a simplified representation of the preferred data structure for storage, retrieval and processing of the characteristic species TRIPS travel information—i.e. for the <u>software management of geographic, temporal, topical and/or transactional records in TRIPS.</u>” <i>Id.</i> at 30:58-65; <i>see also</i> 8:23-32 (describing GIS applications). <i>See also</i> Ex. 1002 ¶¶ 188-90.</p>
b. at least one wireless handheld computing device on which hospitality applications and data are stored,	<p>DeLorme discloses a handheld wireless communication unit (WCU) 907 for accessing TRIPS hospitality data and applications:</p> <p>“FIG. 9 illustrates an important alternative or additional embodiment of TRIPS—that permits mobile users 901... to engage the novel travel reservation information planning system of one or more TRIPS 904 communications facilities or service bureaus. FIG. 9 includes <u>a wireless communication unit or WCU 907, typically hand-held 906</u> or mounted or used in a vehicle 905 like an automobile.” Ex. 1024 at 71:61-72:2.</p> <p>“TRIPS WCUs 907 facilitate two way communications at 903 of standard TRIPS data packets 939 with at least one TRIPS travel information and service 15 provider 904. In sum, FIG. 9 outlines embodiments of the TRIPS invention <u>enabling users to get travel information and/or make travel arrangements "on the go",</u> walking in a city, from their vehicle, during an off-road expedition and so forth.” <i>Id.</i> at 72:13-19.</p> <p><i>See also id.</i> at 18:35-42 and Ex. 1002 ¶¶ 191-93.</p>
c. at least one Web server on which hospitality applications and data are stored,	<p>DeLorme discloses TRIPS data and applications available online via a World Wide Web Site:</p> <p>“Alternatively, all TRIPS function, data and service can be provided entirely online_(i.e. without significant standalone software components)—for example, from a central TRIPS service bureau, or by means of a <u>TRIPS Internet World Wide Web Site.</u>” Ex. 1024 at 14:43-47.</p> <p>“Preferred online TRIPS embodiments—such as <u>an Internet travel reservation information planning system</u>—are designed to facilitate flexible and independent user consideration and manipulation of travel information in association with dates/times in order to construct and/or modify personalized itineraries or travel schedules...” <i>Id.</i> at 51:13-22. <i>See also</i> Ex. 1002 ¶¶ 194-96.</p>
d. at least	DeLorme discloses this limitation. Ex. 1002 ¶ 197. For example,

Claim 12	DeLorme
<p>one Web page on which hospitality applications and data are stored,</p>	<p>DeLorme discloses TRIPS data and applications available online via a World Wide Web Site:</p> <p>“Alternatively, all TRIPS function, data and service can be provided entirely online_(i.e. without significant standalone software components)—for example, from a central TRIPS service bureau, or by means of a <u>TRIPS Internet World Wide Web Site.</u>” Ex. 1024 at 14:43-47.</p> <p>DeLorme further discloses using distributed applications, such as Java “applets,” on Web pages to provide TRIPS hospitality functionality:</p> <p>“Such purely online TRIPS embodiments can be implemented utilizing recent advances in <u>distributed applications, "agents" or online "applets" developed in Java, or equivalent computer languages—plus other state-of-the-art software enhancements for online or Internet usage.</u>” <i>Id.</i> at 14:47-52. <i>See also</i> Ex. 1002 ¶¶ 197-99.</p>
<p>e. an application program interface, and</p>	<p>DeLorme discloses Provider Input/Output 231 for integrating third party applications with TRIPS:</p> <p>“Preferably, <u>TRIPS 203 further offers/brokers Provider Input/Output 231 to and from third-party providers of travel information and services – optimally in real time online.</u> Such third party participation online enables enrolled TRIPS users to enjoy more immediate offerings, such as updated information on accommodations availability i.e. vacancies, special offers for price discounts or extra services, reservations and/or tickets for diverse accommodations or events and so forth – as described in more detail hereinafter, particularly referring to FIG. 8.” Ex. 1024 at 31:42-51.</p> <p>DeLorme further discloses the Accounting Subsystem as comprising software and communication links for integrating accounting, billing and other services:</p> <p>“These transactions are negotiated, consummated, recorded, confirmed, accounted for, and as appropriate, charged, invoiced and/or reconciled within the TRANSACTION COMMUNICATIONS ACCOUNTING MANAGER block—at 816 in FIG. 8A—by means of state-of-the-art <u>software and communication links for electronic commerce or online</u></p>

Claim 12	DeLorme
	<p><u>contracts, related accounting, billing, or customer services</u>, and so forth.” <i>Id.</i> at 64:37-44</p> <p><i>See also id.</i> at 63:61-67; 50:45-48. <i>See also</i> Ex. 1002 ¶¶ 200-02.</p>
f. a communications control module,	<p>DeLorme discloses that the TRIPS system communicates with different end-user devices using different communication protocols:</p> <p><u>“TRIPS can also work with alternative end-user hardware platforms</u>; e.g., networked work stations; "kiosk" information terminals linked to a central server; portable laptop, notebook, in-vehicle, or handheld personal digital assistant (PDA) portable computer devices... TRIPS can also be provided via "smart Cable TV" interfaces that combine simplified PC functionality, input/output with a mass-market "home" television appliance. ...” Ex. 1024 at 14:66-15:13.</p> <p>“For convenient use en route, e.g., in a vehicle or on foot, the <u>WCU 907 preferably provides simplified or "push-button" input means</u> at 914, 915, 916, 918 and 920, for example to make TRIPS inquiries from a moving car, as described hereinafter. ... <u>The TRIPS service bureau or provider 904 in FIG. 9 receives the simplified input or remote queries</u>, which get processed by series or sequences of TRIPS geographic, temporal, topical and accounting operations. ...” <i>Id.</i> at 73:26-45; <i>see also</i> 73:64-74:29.</p> <p>DeLorme further discloses a communication control module (<i>i.e.</i> Interface and Interaction Bus 209 in Fig. 2 or Main Menu 413 and Interaction Bus 414 in Fig. 4) that coordinates communication with different end-user devices:</p> <p>“A TRIPS Retail Consumer Input is shown at 205 in FIG. 2. Retail user input 205 includes travel planning inquiries... <u>The TRIPS Interface & Interaction Bus 209 functions to furnish flexible user-directed access to, from and among the four Subsystems at 221, 223, 213 and 217 within TRIPS 203.</u>” <i>Id.</i> at 30:67-31:22; <i>see also</i> 22:63-66; Fig. 2.</p> <p>“In FIG. 4, <u>the Main Menu 413 and the Interaction Bus 414</u></p>

Claim 12	DeLorme
	<p><u>correspond to the TRIPS Interface & Interaction Bus 209 in FIG. 2</u>—as well as the main input menus at 155, 157, 161 and 163 in FIG. 1C—plus equivalent input means like graphical user interfaces (GUIs). Moreover, the Main Menu 413 and <u>Interaction Bus 414 in FIG. 4</u> correspond to, and <u>coordinate the response to, alternative input means</u> embedded in specialized TRIPS field or in-vehicle embodiments that typically include the wireless communication of GPS position sensor data along with simplified, "push-button" travel information inquiries sent by users actually en route or at remote locations..." <i>Id.</i> at 37:54-67. <i>See also</i> Ex. 1002 ¶¶ 203-09.</p>

A POSITA would understand or find obvious that the Interface and Interaction Bus 209 in Fig. 2 or Main Menu 413 and Interaction Bus 414 in Fig. 4 constitute a communication control module that serves as an interface between retail consumer users (e.g. 205 in Fig. 2) and the various subsystems that comprise TRIPS (e.g. Topical Subsystem 213, Accounting Subsystem 217, Geographic Subsystem 221, and Temporal Subsystem 223). Ex. 1002 ¶ 209. A POSITA would further understand or find obvious that the communication control module is configured to interface with retail consumer users using different types of devices using different communication protocols, including both Internet based access (14:66-15:13) as well as access via a "simplified" request protocol from wireless communication devices (73:26-45; 73:67-74:29). Ex. 1002 ¶ 209.

Claim 12	DeLorme
wherein applications and data are synchronized	<p>DeLorme discloses that users may view updated real-time TRIPS data via the internet site.</p> <p>"Once online, the preferred embodiment lets the user "view" or</p>

Claim 12	DeLorme
<p>between the central data base, at least one wireless handheld computing device, at least one Web server and at least one Web page;</p>	<p>download updated TRIPS map data, functions and timely, topical travel information. ... When needed, TRIPS user inquiries can be processed online or via computer communications for immediate treatment and response. In sum, <u>the FIG. 1A preferred embodiment facilitates access to current information and "real-time" services online...</u> Ex. 1024 at 14:24-42. <i>See also</i> 14:43-47.</p> <p>DeLorme further discloses providing updated TRIPS data to wireless communication units:</p> <p>“FIG. 9 also depicts alternative TRIPS embodiments and remote usage scenarios which facilitate "on the spot" simplified travel planning and transactions, via WCU 907 from remote locations, by retail users actually en route, who have not necessarily engaged in previous desktop TRIPS travel planning sessions, arrangements, output or transfers specifically related to their current trip. ... <u>In other words, FIG. 9 illustrates TRIPS embodiments for immediate travel inquiries and responses to and from TRIPS retail users "on the road" or at remote "field" locations.</u>” <i>Id.</i> at 72:37-43; 72:67-73:6. <i>See also</i> Ex. 1002 ¶¶ 210-12.</p>
<p>wherein the application program interface enables integration of outside applications with the hospitality applications and</p>	<p>DeLorme discloses Provider Input/Output 231 for integrating third party applications with TRIPS hospitality applications:</p> <p>“Preferably, <u>TRIPS 203 further offers/brokers Provider Input/Output 231 to and from third-party providers of travel information and services – optimally in real time online.</u> Such third party participation online enables enrolled TRIPS users to enjoy more immediate offerings, such as updated information on accommodations availability i.e. vacancies, special offers for price discounts or extra services, reservations and/or tickets for diverse accommodations or events and so forth – as described in more detail hereinafter, particularly referring to FIG. 8.” Ex. 1024 at 31:42-51. <i>See also</i> Ex. 1002 ¶ 213.</p>
<p>wherein the communications control module is an interface between the hospitality</p>	<p>DeLorme discloses that the TRIPS system communicates with different end-user devices using different communication protocols:</p> <p><u>“TRIPS can also work with alternative end-user hardware platforms;</u> e.g., networked work stations; "kiosk" information</p>

Claim 12	DeLorme
applications and any other communications protocol.	<p>terminals linked to a central server; portable laptop, notebook, in-vehicle, or handheld personal digital assistant (PDA) portable computer devices... TRIPS can also be provided via "smart Cable TV" interfaces that combine simplified PC functionality, input/output with a mass-market "home" television appliance. ..." Ex. 1024 at 14:66-15:13.</p> <p>"For convenient use en route, e.g., in a vehicle or on foot, the <u>WCU 907 preferably provides simplified or "push-button" input means</u> at 914, 915, 916, 918 and 920, for example to make TRIPS inquiries from a moving car, as described hereinafter. ... <u>The TRIPS service bureau or provider 904 in FIG. 9 receives the simplified input or remote queries</u>, which get processed by series or sequences of TRIPS geographic, temporal, topical and accounting operations. ..." <i>Id.</i> at 73:26-45; <i>see also</i> 73:64-74:29.</p> <p>DeLorme further discloses a communication control module (<i>i.e.</i> Interface and Interaction Bus 209 in Fig. 2 or Main Menu 413 and Interaction Bus 414 in Fig. 4) that coordinates communication with different end-user devices:</p> <p>"A TRIPS Retail Consumer Input is shown at 205 in FIG. 2. Retail user input 205 includes travel planning inquiries... <u>The TRIPS Interface & Interaction Bus 209 functions to furnish flexible user-directed access to, from and among the four Subsystems at 221, 223, 213 and 217 within TRIPS 203.</u>" <i>Id.</i> at 30:67-31:22; <i>see also</i> 22:63-66; Fig. 2.</p> <p>"In FIG. 4, <u>the Main Menu 413 and the Interaction Bus 414 correspond to the TRIPS Interface & Interaction Bus 209 in FIG. 2</u>—as well as the main input menus at 155, 157, 161 and 163 in FIG. 1C—plus equivalent input means like graphical user interfaces (GUIs). Moreover, the Main Menu 413 and <u>Interaction Bus 414 in FIG. 4</u> correspond to, and <u>coordinate the response to, alternative input means</u> embedded in specialized TRIPS field or in-vehicle embodiments that typically include the wireless communication of GPS position sensor data along with simplified, "push-button" travel information inquiries</p>

Claim 12	DeLorme
	sent by users actually en route or at remote locations...” <i>Id.</i> at 37:54-67. <i>See also</i> Ex. 1002 ¶¶ 214-18.

A POSITA would understand that that the communication control module (*i.e.* Interface and Interaction Bus 209 in Fig. 2 or Main Menu 413 and Interaction Bus 414 in Fig. 4) serves as an interface between retail consumer users (e.g. 205 in Fig. 2) and the various subsystems that comprise TRIPS (e.g. Topical Subsystem 213, Accounting Subsystem 217, Geographic Subsystem 221, and Temporal Subsystem 223). A POSITA would further understand that the communication control module is configured to interface with retail consumer users using different types of devices using different communication protocols, including both Internet based access (14:66-15:13) as well as access via a “simplified” request protocol from wireless communication devices (73:26-45; 73:67-74:29). Ex 1002 ¶ 218.

Claim 13	DeLorme
13. The information management and synchronous communications system of claim 12	See claim 12 above. <i>See also</i> Ex. 1002 ¶ 219.
wherein the communications control module provides a single point of entry for all hospitality applications and	DeLorme discloses this limitation. Ex. 1002 ¶220. As discussed above, DeLorme discloses an Interaction Bus 209/414, that coordinates communication with the various input means. Ex. 1024 at 14:66-15:13, 73:26-45, 3:64-74:29, 22:63-66, and 37:54-67. <i>See also</i> Ex. 1002 ¶¶ 220-21.

A POSITA would understand that that the communication control module (*i.e.* Interface and Interaction Bus 209 in Fig. 2 or Main Menu 413 and Interaction Bus 414) serves as an interface between retail consumer users (e.g. 205 in Fig. 2)

and the various subsystems that comprise TRIPS (e.g. Topical Subsystem 213, Accounting Subsystem 217, Geographic Subsystem 221, and Temporal Subsystem 223). Ex 1002 ¶ 221. A POSITA would further understand that the communication control module is thus configured to serve as a single point of entry for hospitality applications on different types of devices using different communication protocols, including both Internet based access (14:66-15:13) as well as access via a “simplified” request protocol from wireless communication devices (73:26-45; 73:67-74:29). Ex 1002 ¶ 221.

Claim 13		DeLorme
wherein the single point of entry allows the synchronization of at least one wireless handheld computing device and at least one Web page with the central database so that at least one handheld device, at least one Web page and central database are consistent.		As discussed above, DeLorme discloses that the TRIPS data is synchronized data between the central database and at least one wireless handheld device (i.e. WCU 907) and at least one web page (downloaded from the TRIPS Internet web site). Ex. 1024 at 14:24-47, 72:37-43, and 72:67-73:6. <i>See also</i> Ex. 1002 ¶ 222.
Claim 14		DeLorme
14. The information management and synchronous communications system of claim 13		See claim 13 above. <i>See also</i> Ex. 1002 ¶ 223.
wherein information entered on at least one Web page and transmitted over the internet is automatically communicated to the central database and at least one wireless handheld computing device.		See the first wherein clause of claim 12 above. <i>See also</i> Ex. 1002 ¶¶ 224-27.

Because the TRIPS database maintains all travel and itinerary information, it would have been obvious to one of ordinary skill in the art that information entered on a TRIPS web page on a user’s PC would automatically be entered into the TRIPS database and would automatically be reflected (e.g., in the form of an

updated itinerary) in future downloads of that itinerary, including downloads to wireless handheld devices. Ex. 1002 ¶ 227.

Claim 15	DeLorme
15. The information management and synchronous communications system of claim 13	See claim 13 above and Ex. 1002 ¶¶ 228.
wherein information entered on at least one wireless handheld computing device is automatically communicated to the central database and at least one Web page.	See the first wherein clause of claim 12 above and Ex. 1002 ¶¶ 229-32.

Because the TRIPS database maintains all travel and itinerary information, it would have been obvious to one of ordinary skill in the art that information entered on a wireless handheld device would automatically be entered into the TRIPS database and would automatically be reflected (e.g., in the form of an updated itinerary) in future downloads of that itinerary, including downloads to a web page on a user's PC. Ex. 1002 ¶232.

Claim 16	DeLorme
16. The information management and synchronous communications system of claim 12	See claim 12 above and Ex. 1002 ¶¶ 233.
wherein the applications and data are synchronized by digital data transmission between the central database, at least one wireless handheld computing device, at least one Web server and at least one Web page.	See the first wherein clause of claim 12 above. <i>See also</i> Ex. 1002 ¶¶ 234-37.

The communications between the TRIPS central database, the wireless computing handheld device, the Web server and the Web page are inherently digital. Ex. 1002 ¶ 237. For example, Web servers and Web pages communicate

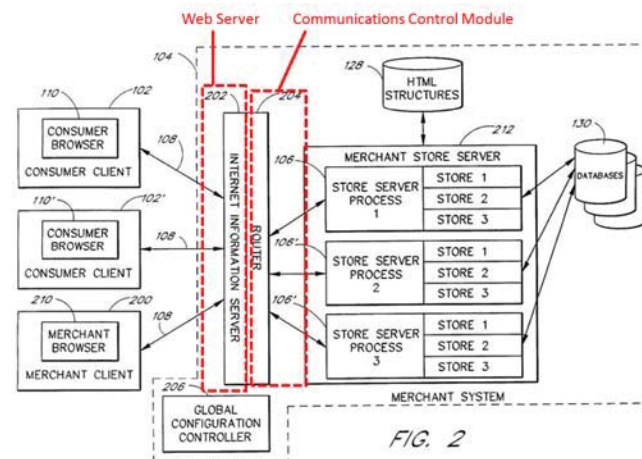
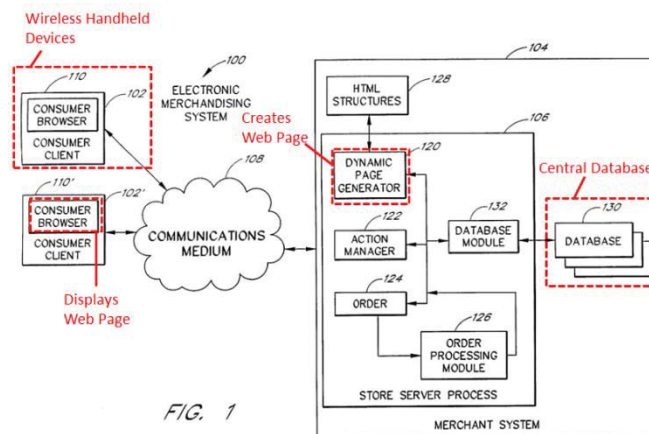
using TCP/IP, which is a digital protocol. *Id.* Additionally, the protocol used by the wireless computing handheld device is digital. *Id.*; Ex. 1024 at 72:7-15. In any event, it would have been obvious to one of ordinary skill in the art that data transmissions of claim 12 would be digital data transmissions. Ex. 1002 ¶ 237.

C. Challenge to Claims 12-16 Based on Blinn and Inkpen.

1. Summary of Blinn

Blinn, which was not considered by the Patent Office during the original prosecution of the '850 patent, has a filing date of October 16, 1996 and an issue date of May 2, 2000. Blinn is incorporated by reference in U.S. Patent No. 5,897,622 (Ex. 1038, the "'622 patent"), which was filed on October 16, 1996 and issued on April 27, 1999. Ex. 1038 at 9:63-10:1. The '622 patent is § 102(a) prior art, and by incorporating Blinn by reference made Blinn available to the public as of April 27, 1999. 37 C.F.R. § 1.14(a)(vi) and MPEP § 103 (unpublished application incorporated by reference into issued patent is available to public upon written request). Accordingly, Blinn was "publicly available" when the '622 patent issued as it is a "printed publication" under § 102(a). *See Bruckelmyer v. Ground Heaters, Inc.*, 445 F.3d 1374, 1377-78 (Fed. Cir. 2006) (holding an application referenced in a published patent is "publicly available" as a printed publication under § 102(b) even though the application was only available in the archives of the Canadian Patent Office).

Blinn discloses a method and system for processing electronic sales transactions. The method and system described in Blinn set forth communications among client devices (including wireless personal digital assistants and standalone computers), the internet, and a merchant system including a database and communications control means. Ex. 1002 ¶ 239-40. While the charts below explain how Blinn anticipates the Challenged Claims in more detail, annotated Figures 1 and 2 from the patent serve as a helpful guide as to how Blinn's disclosure can be mapped onto the claims of the '850 patent:



2. Patentability Challenge Based on Blinn and Inkpen.

Claims 12-16 are unpatentable under 35 U.S.C. § 103 (pre-AIA) as being obvious in view of U.S. Pat. No. 6,058,373 to Blinn et al. and Inkpen. Ex. 1002 ¶¶ 238-43. It would have been obvious to a person of ordinary skill in the art to combine the prior art elements of Blinn and Inkpen to achieve an online merchant system that includes the capability for online transactions with hospitality applications. Such a combination would have been a use of a known technique to improve a similar device in the same way because it simply would have integrated the functionality of two methods of user interaction including online sales of specific types, such as hospitality applications. *Id.* at ¶ 243.

Claim 12	Blinn and Inkpen
12. An information management and synchronous communications system for use with wireless handheld computing devices and the internet comprising:	<p>Blinn discloses a system for processing electronic sales transactions through using an information management and synchronous communications system, which includes wireless handheld computing devices and the internet:</p> <p>“The present invention provides a method and system for processing electronic sales transactions. In a preferred embodiment, an electronic merchandising system allows merchants to create electronic orders which are easily adaptable for different sales situations.” - Ex. 1025 at Abstract.</p> <p>“Focusing now on the communications medium 108 as shown in FIG. 2, the presently preferred communications medium 108 includes the Internet which is a global network of computers. The structure of the Internet, which is well known to those of ordinary skill in the art, includes a network backbone with networks branching from the backbone.” Ex. 1025 at 9:10-16.</p> <p>“In other embodiments, the consumer computer 102 could, for example, be a computer workstation, a local area network of computers, an interactive television, an interactive kiosk, a</p>

	<p>personal digital assistant, an interactive wireless communications device or the like which can interact with the communications medium 108.” Ex. 1025 at 10:9-14. <i>See also</i> Ex. 1025 at Abstract; Figs. 1, 2 at 102 and 108; 9:11-12; 10:12-14; 13:36-43. <i>See also</i> Ex. 1002 ¶¶ 244-47.</p>
a. a central database containing hospitality applications and data,	<p>Blinn discloses a database, identified as 130 in Figures 1 and 2, hosted by a centralized merchant system computer that includes hospitality applications and data on store server process 106:</p> <p>“. . . the store server process 106 is in communication with one or more databases 130 with a database module 132.” Ex. 1025 at 8:9-11.</p> <p>“The merchant system 104 includes an internet information server 202, a router 204, a global configuration controller 205, at least one merchant store server 212, a storage medium for HTML structures 128 and one or more databases 130.” Ex. 1025 at 11:31-41.</p> <p>Inkpen discloses a central database including the MARSHA computerized reservation system that includes a database that stores reservation records. Ex. 1021 at Figure 5.36 and 230-231. <i>See also</i> Ex. 1025 Figs. 1 and 2 at 130. <i>See also</i> Ex. 1002 ¶¶ 248-52.</p>

It would have been obvious to a POSITA that the database 130 could contain hospitality applications and data. For instance, Blinn’s describes the capability to modify the application based on a “merchant’s unique sales transactions,” which a POSITA would understand could include hospitality-specific transactions. *See* Ex. 1025 at 38:43-47; *see also* 1:11-18, 1:30-38, 4:66-5:3, Ex. 1002 ¶ 252. Indeed, in Blinn, the inventors identified in a preferred embodiment the flexibility to include adaptable electronic orders for different sales situations. Ex. 1025 at 1:67-2:3; Ex.

1002 ¶ 252. Additionally, as discussed above, Inkpen discloses hospitality applications and data for use in its MARSHA computerized reservation system, and a POSITA would have found it obvious to include the hospitality applications from Inkpen/MARSHA into the system disclosed by Blinn to permit Blinn to function with hospitality applications. Ex. 1002 ¶ 252.

Claim 12	Blinn and Inkpen
b. at least one wireless handheld computing device on which hospitality applications and data are stored,	Blinn discloses an interactive wireless communications device such as a personal digital assistant which interacts with a communications medium and includes software allowing access to the merchant system. The consumer client 102 is a wireless computing device. Ex. 1025 at Figs. 1 and 2 at 102; 10:9-32. “. . . the consumer computer 102 could, for example, be a computer workstation, a local area network of computers, an interactive television, an interactive kiosk, a personal digital assistant, an interactive wireless communications device or the like which can interact with the communications medium 108.” Ex. 1025 at 10:9-14. “For example, the communications medium 108 can include...wireless data transmission systems” Ex. 1025 at 9:23-28. <i>See also</i> Ex. 1002 ¶¶ 253-57. <i>See</i> 12a above for disclosure of “hospitality applications.”

It would have been obvious to a POSITA that the consumer computer 102 could have stored hospitality applications and data. *See* Ex. 1025 at 38:43-47; *see also* 1:11-18, 1:30-38, 4:66-5:3; Ex. 1002 ¶ 257. It would further have been obvious to a POSITA that Blinn’s interactive wireless communications device could be a handheld device.

Claim 12	Blinn and Inkpen
c. at least one Web server on	Blinn discloses an Internet information server which works in conjunction with the merchant system. <i>See</i> Ex. 1025 at Fig. 2 at 202; 1:19-29; 12:23-34.

Claim 12	Blinn and Inkpen
which hospitality applications and data are stored,	<p>“Typically, a Web site is an Internet-connected computer or computer system which runs server software for serving information using the standard protocols of the World Wide Web.” Ex. 1025 1:22-25.</p> <p>“The Internet information server 202 is a World Wide Web server. The Internet information server 202 supports the use of virtual servers, allowing multiple web servers to run on a single computer. The Internet information server 202 also uses the HyperText Transmission Protocol (HTTP) to communicate with the consumer browsers 110 or the merchant browser 210.” Ex. 1025 12:23-29. <i>See also</i> Ex. 1002 ¶¶ 258-62. <i>See</i> 12a above for disclosure of “hospitality applications.”</p>

It would have been obvious to a POSITA that the web server 202 could have stored hospitality applications and data. *See* Ex. 1025 at 38:43-47; *see also* Ex. 1025 at 1:11-18, 1:30-38, 4:66-5:3, Ex. 1002 ¶262.

Claim 12	Blinn and Inkpen
d. at least one Web page on which hospitality applications and data are stored,	<p>Blinn discloses web pages hosted by merchants created by a dynamic page generator on a store server process which provides the web page to the consumer client. Ex. 1025 at Fig. 1 at 102, 106, 110 and 120; Fig. 2 at 106; 1:22-29; 8:36-44.</p> <p>“Typically, a Web site is an Internet-connected computer or computer system which runs server software for serving information using the standard protocols of the World Wide Web.” Ex. 1025 at 1:22-25.</p> <p>“When a consumer directs the consumer browser 110 on the consumer computer to access the merchant system 104, the dynamic page generator 120 creates web pages with illustrate different watches offered for sale.” Ex. 1025 at 8:36-39. <i>See also</i> Ex. 1002 ¶¶ 263-67. <i>See</i> 12a above for disclosure of “hospitality applications.”</p>

It would have been obvious to a POSITA that the wireless handheld

computing device rendering the web page via a browser could have stored hospitality applications and data. *See* Ex. 1025 at 38:43-47; *see also* 1:11-18, 1:30-38, 4:66-5:3, Ex. 1002 ¶ 267.

Claim 12	Blinn and Inkpen
e. an application program interface, and	Blinn discloses communication with third party credit card authorization software including “VeriFone’s Point of Sale (vPOS) software.” Ex. 1025 37:61-62; <i>see also</i> Fig. 12C, 30:32-37, and 37:55-64. <i>See also</i> Ex. 1002 ¶¶ 268-69.

In order to integrate the VeriFone Point of Sale software with the Merchant System 104, an application program interface would be required so that the two systems could communicate with each other. Ex. 1002 ¶ 269. Accordingly, a POSITA would understand Blinn to disclose an application program interface. *Id.*

Claim 12	Blinn and Inkpen
f. a communications control module,	<p>Blinn discloses a communications control module comprised of the router which acts as an interface between the internet and the store server process:</p> <p>“In the preferred embodiment, the router 204 and the merchant store server 212 utilize the global configuration information to interconnect the consumer browsers 110 with the store server processes 106.” Ex. 1025 at 12:50-53.</p> <p>Additionally, the communications control module functionality is performed by the TCP/IP stack within the merchant system 104:</p> <p>“The Microsoft Windows® NT operating system includes a TCP/IP stack which handles all incoming and outgoing message traffic passed over the communications medium 108.” Ex. 1025 at 11:65-12:1. <i>See also</i> Ex. 1002 ¶¶ 270-73.</p>

By handling “all incoming and outgoing message traffic” sent to and from

the merchant system, the TCP/IP stack working in conjunction with the router 204 serve the role of the communications control module. Ex. 1002 ¶ 273.

Claim 12	Blinn and Inkpen
<p>wherein applications and data are synchronized between the central data base, at least one wireless handheld computing device, at least one Web server and at least one Web page;</p>	<p>Blinn discloses applications and data synchronized across the central database described above in 12a, the wireless personal digital assistant described in element 12b, the Web server described in 12c, and the Web page described in 12d:</p> <p>“The consumer client 102 contains a consumer browser 110. The consumer browser 110 communicates with the store server process 106 and displays the web documents created by the store server process 106. Each store server process 106 provides a server architecture that supports the presentation and administration of a virtual store. Preferably, the store server process 106 comprises a number of components including a dynamic page generator 120, an action manager 122, one or more orders 124 and an order processing module 126. Furthermore, in communication with the store server process 106 is a storage device such as a hard disk which contains HTML structures 128 which define the layout of different HTML pages. In addition, the store server process 106 is in communication with one or more databases 130 with a database module 132.” Ex. 1025 7:64-8:11</p> <p>“In other embodiments, the consumer computer 102 could, for example, be a computer workstation, a local area network of computers, an interactive television, an interactive kiosk, a personal digital assistant, an interactive wireless communications device or the like which can interact with the communications medium 108. While in such systems the operating systems will differ, they will continue to provide the appropriate communications protocols needed to establish communication links with the communications medium 108.” <i>Id.</i> at 10:9-18.</p> <p>“During a typical shopping session, the consumer browser 110 and the store server process 106 communicate with each other over the communications medium 108. Typically, the consumer browser 110 sends URL addresses to the store server process 106, and the store server process 106 responds with HTML documents. The HTML documents may contain registration information, product offerings, promotional advertisements, order forms, etc.” <i>Id.</i> at 13:36-43.</p> <p>“Associated with the shopper table 300 is the shopper manager 320.</p>

Claim 12	Blinn and Inkpen
	<p>The shopper manager 320 adds, modifies and deletes the entries existing in the shopper table 300.” <i>Id.</i> at 16:1-6.</p> <p>“The product variant table 802 is also merchant defined and stores information for a specific product within the product family. Each row in the product variant table 802 is a record corresponding to a particular product while each column contains information related to the products. For example, the product variant columns may contain a product's family identifier, stock keeping unit (sku), a color value, a size value, etc. The format of the product family table 800 is merchant defined and can contain wide variety of product characteristics. The merchant specifies the location of a query which queries the product variant table 802 in the registry.” <i>Id.</i> at 16:34-45.</p> <p>“In addition, the URL can contain the number of items (quantity) and the price of the items.” <i>Id.</i> at 18:26-28.</p> <p>“The OrderItemValidate component 1226<i>b</i> is configured to check the order 124 for required items, and verify that the required items exist.” <i>Id.</i> at 24:36-38.</p> <p>“The components in the inventory stage 386 verify that every selected item is in stock.” <i>Id.</i> at 29:61-62</p> <p>“When the ReduceLocalInventory component 1282<i>e</i> receives the order 124, the ReduceLocalInventory component 1282<i>e</i> reduces the inventory in an inventory database 130 by the number of products ordered. The ReduceLocalInventory component 1282<i>e</i> uses the sku key-value pairs and the quantity key-value pairs to specify a database query which deducts the quantity amounts from the database 130.” <i>Id.</i> at 38:25-31. <i>See also</i> Figure 6. <i>See also</i> Ex. 1002 ¶¶ 274-84.</p>

It would have been obvious to a POSITA that upon the store server process and consumer browsers on computers and handheld devices becoming connected, the sales and item data maintained on the store server databases would be sent to the consumer browsers, including PocketWeb and NetHopper, rendered on the consumer computer and wireless handheld device, and thereby the data and

applications on the store server process and the consumer browsers on the computers and handheld devices would become synchronized (as that term is properly construed). Ex. 1002 ¶ 284. This is further evidenced by the inventory stage, which adjusts the quantities in the database upon a sale made via one of the consumer browsers such that future downloads reflect the adjusted inventory levels, thereby achieving synchronization. Ex. 1025 at 36:29-51 and 38:25:31; Ex. 1002 ¶ 284. Additionally, Figure 6’s display of the credit card user’s name “Gary” evidences synchronization among the devices of Blinn’s system because the user “Gary” had to input his name prior to the display of Figure 6, and the fact that “Gary’s” name is displayed in Fig. 6 indicates that it was communicated to the requisite devices (i.e., the Web server, etc.). Ex. 1002 ¶ 284. A POSITA would have understood and found it obvious to communicate the information input by the user to the Web server. *Id.*

Claim 12	Blinn and Inkpen
wherein the application program interface enables integration of outside applications with the hospitality applications and	Blinn discloses that the system discloses communication with third party credit card authorization software including “VeriFone’s Point of Sale (vPOS) software” that integrates with the hospitality applications on the store server process 106 to process the order. Ex. 1025 at 37:61-62. <i>See also</i> Ex. 1025 8:23-34; 37:55-38:4. <i>See also</i> Ex. 1002 ¶¶ 285-87. <i>See</i> 12a above for disclosure of “hospitality applications.”

The store server process 106 in creating and completing an order integrates with the third party VeriFone Point of Sale software. Ex. 1002 ¶ 287. This evidences the claimed integration of the outside applications, such as VeriFone’s

Point of Sale software, with the store server processes that allows the VeriFone vPOS software to verify the credit card payments of the end user, including information input by the purchaser which shows up on the purchase screen in Figure 6. Ex. 1002 ¶ 287. This information will thus be reflected in the database, store server process as well as on the web server and web pages downloaded to the consumer computer and wireless handheld device. Ex. 1002 ¶ 287.

Claim 12	Blinn and Inkpen
<p>wherein the communications control module is an interface between the hospitality applications and any other communications protocol.</p>	<p>Blinn discloses the communications control module described in element 12f above serving as an interface between the hospitality applications on the store server processes and any other communications protocol because the communications control module disclosed by Blinn handles all incoming and outgoing message traffic, which would include the hospitality applications and other communications protocol:</p> <p>“The Microsoft Windows® NT operating system includes a TCP/IP stack which handles all incoming and outgoing message traffic passed over the communications medium 108.” Ex. 1025 at 11:65-12:1.</p> <p>“In the preferred embodiment, the router 204 and the merchant store server 212 utilize the global configuration information to interconnect the consumer browsers 110 with the store server processes 106.” <i>Id.</i> at 12:50-53.</p> <p>Additionally, Blinn contains a communications control module that interfaces between the store server process and one or more other communications protocols, which is necessarily present given the system features identified in this chart. <i>See</i> Ex. 1002 ¶ 291. <i>See also</i>, Ex. 1025 Fig. 2 at 204. <i>See also</i> Ex. 1002 ¶¶ 288-92. <i>See</i> 12a above for disclosure of “hospitality applications.”</p>
Claim 13	Blinn and Inkpen
<p>13. The information management</p>	<p>See claim 12 of the '850 patent above. <i>See</i></p>

and synchronous communications system of claim 12.	<i>also</i> Ex. 1002 ¶¶ 293.
wherein the communications control module provides a single point of entry for all hospitality applications and	<p>Blinn discloses a communications control module comprised of the router which acts as an interface between the internet and the store server process:</p> <p>“In the preferred embodiment, the router 204 and the merchant store server 212 utilize the global configuration information to interconnect the consumer browsers 110 with the store server processes 106.” Ex. 1025 at 12:50-53.</p> <p>Additionally, the communications control module functionality is performed by the TCP/IP stack within the merchant system 104:</p> <p>“The Microsoft Windows® NT operating system includes a TCP/IP stack which handles all incoming and outgoing message traffic passed over the communications medium 108.” Ex. 1025 at 11:65-12:1. <i>See also</i> Ex. 1002 ¶¶ 294-98. <i>See</i> 12a above for disclosure of “hospitality applications.”</p>

By handling “all incoming and outgoing message traffic” sent to and from the merchant system, the TCP/IP stack working in conjunction with the router 204 serves as a single point of entry for all applications. Ex. 1002 ¶ 298.

Claim 13	Blinn and Inkpen
wherein the single point of entry allows the synchronization of at least one wireless handheld computing device and at least one Web page with the central database so that at least one handheld device, at least one Web	<p>Blinn discloses the single point of entry described above allowing the synchronization of the wireless personal digital assistant described in 12b and the Web page described in 12d with the central database described in 12a through the consumer browser 110 by the communication among the personal digital assistant from 12b, the Web page from 12d and the central database from 12b through the router 204:</p> <p>“The router 204 examines the universal resource locator (URL) address specified in a consumer browser 110 or merchant browser request, and determines from the URL if the URL is a request which specifies one of the merchant store servers 212. In the preferred embodiment, the router 204 and the merchant store server 212 utilize the global configuration information to interconnect the consumer browsers 110 with the store server</p>

Claim 13	Blinn and Inkpen
page and central database are consistent.	processes 106.” Ex. 1025 at 12:46-53. <i>See also</i> Ex. 1002 ¶¶ 299-301.

See discussion following first wherein clause of claim 12 in the chart above.

Claim 14	Blinn and Inkpen
14. The information management and synchronous communications system of claim 13	See claim 13 set forth above. <i>See also</i> Ex. 1002 ¶¶ 302.
wherein information entered on at least one Web page and transmitted over the internet is automatically communicated to the central database and at least one wireless handheld computing device.	See the second wherein clause of claim 13 above. Blinn discloses that information entered on the Web page is transmitted over the internet and automatically communicated to the central database and personal digital assistant through their communication links with the communications medium. Ex. 1025 at 10:9-18; 15:35-47. <i>See also</i> Ex. 1002 ¶¶ 303-08.

Because the database maintains all data and inventory records, it would have been obvious to one of ordinary skill in the art that information entered on a Web page on a user’s PC, for example a purchase of an item, would automatically be entered into the database and would automatically be reflected (e.g., in the form of an availability indication) in future downloads of Web pages for that item, including Web pages downloaded to wireless handheld devices. *See* Ex. 1025 at 10:9-18, 15:35-47, 36:22-51; and 38:25-31; Ex. 1002 ¶ 307.

Additionally, the Web page of claim 14 could be a Web page listing items for purchase being rendered on a wireless handheld device. In that instance, it would have been obvious to one of ordinary skill in the art that information

pertinent to a purchase request entered on a Web page (e.g., the user's name, shipping address, etc.) would be automatically communicated to the database and a purchase confirmation Web page including the same information would be automatically sent back to the wireless handheld device from which the purchase had been made. Ex. 1002 ¶ 308. Such confirmation/checkout pages were widely known in the art at the time of the '850 patent. *Id.*

Claim 15	Blinn and Inkpen
15. The information management and synchronous communications system of claim 13	See claim 13 set forth above. <i>See also</i> Ex. 1002 ¶ 309.
wherein information entered on at least one wireless handheld computing device is automatically communicated to the central database and at least one Web page.	See the second wherein clause of claim 13 above. <i>See also</i> , Ex. 1025 at 10:9-18. <i>See also</i> Ex. 1002 ¶¶ 310-14.

Because the database maintains all data and inventory records, it would have been obvious to one of ordinary skill in the art that information entered on a Web page on a user's PC, for example a purchase of an item, would automatically be entered into the database and would automatically be reflected (e.g., in the form of an availability indication) in future downloads of Web pages for that item, including Web pages downloaded to wireless handheld devices. *See* Ex. 1025 at 10:9-18, 15:35-47, 36:22-51; and 38:25-31; Ex. 1002 ¶ 313.

Additionally, the Web page of claim 15 could be a Web page for items for purchase being rendered on a wireless handheld device. In that instance, it would have been obvious to a POSITA that information pertinent to a purchase request

entered on a Web page (e.g., the user's name, address, etc.) would be automatically communicated to the database and a sales Web page including the same information would be automatically sent back to the wireless handheld device from which such purchase had been made. Ex. 1002 ¶ 314. Such confirmation/checkout pages were widely known in the art at the time of the '850 patent. *Id.*

Claim 16	Blinn and Inkpen
16. The information management and synchronous communications system of claim 12	See claim 12 of the '850 patent above. <i>See also</i> Ex. 1002 ¶ 315.
wherein the applications and data are synchronized by digital data transmission between the central database, at least one wireless handheld computing device, at least one Web server and at least one Web page.	See the first wherein clause of claim 12 above. <i>See also</i> , Ex. 1025 at Fig. 1 at 102, 120; Fig. 2 at 102, 110, and 202; 1:25-29; 8:9-11; 10:9-18; 13:36-43. <i>See also</i> Ex. 1002 ¶¶ 316-327.

The communications between the database, the wireless computing handheld device, the Web server and the Web page are inherently digital. Ex. 1002 ¶ 327. For example, Web servers and Web pages communicate using TCP/IP (disclosed in Blinn in connection with the TCP/IP stack), which is a digital protocol. *Id.* Additionally, the '850 patent describes that “digital wireless communications devices [were] in common use” at the time of the alleged invention. Ex. 1003 at 1:28-31. In any event, it would have been obvious to one of ordinary skill in the

art that the data transmissions of claim 12 would be digital data transmissions. Ex. 1002 ¶ 327.

XII. NONE OF THE CHALLENGES ARE REDUNDANT

None of the three challenges to independent claim 12 in this petition are redundant, and therefore trial should be instituted with respect to all three challenges. Challenge 1 (obviousness over on Inkpen, Digestor and Nokia) is stronger than Challenge 2 (obviousness over on DeLorme) and Challenge 3 (obviousness over Blinn and Delorme) because none of the three references in Challenge 1 can be antedated, whereas at least one reference in each of Challenge 2 (DeLorme) and Challenge 3 (Blinn) is capable of being antedated. This issue is particularly important given the existence of Rule 131 declarations in the file history of the related '077 patent. *See* Section VII.C, *supra*. Accordingly, Challenge 1 is not redundant over either Challenge 2 or 3. Challenge 2 is stronger than Challenges 1 or 3, and therefore is not redundant over either of them, in that it is based on a single reference and therefore is not subject to attack based on lack of motivation to combine references. Challenge 3 is stronger than Challenge 1 in that the primary reference in Challenge 3 (Blinn) explicitly discloses a handheld device, whereas the primary reference in Challenge 1 (Inkpen) does not. Challenge 3 is stronger than Challenge 2 in that antedating Blinn (Inkpen cannot be antedated) requires swearing back to April 27, 1999, whereas antedating DeLorme

only requires swearing back to September 7, 1999, a difference of more than 4 months. Accordingly, Challenge 3 is not redundant over either Challenge 1 or 2.

XIII. CONCLUSION

For the foregoing reasons, Petitioner requests that Trial be instituted and claims 12-16 be cancelled.

Respectfully Submitted,

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CERTIFICATE OF SERVICE

The undersigned hereby certifies that a copy of the foregoing petition for Covered Business Method review and all Exhibits and other documents filed together with the petition were served on February 19, 2015, via courier, directed to patent owner and patent owner correspondent at the following addresses:

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