

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

BJ'S WHOLESALE CLUB HOLDINGS, INC.,
Petitioner,

v.

WALMART APOLLO, LLC,
Patent Owner.

IPR2022-01561
Patent 10,803,435 B2

Before PATRICK R. SCANLON, NEIL T. POWELL, and
MITCHELL G. WEATHERLY, *Administrative Patent Judges*.

POWELL, *Administrative Patent Judge*.

DECISION
Denying Institution of *Inter Partes* Review
35 U.S.C. § 314

I. INTRODUCTION

A. BACKGROUND

BJ's Wholesale Club Holdings, Inc. ("Petitioner") filed a Petition for *inter partes* review of claims 1–14 of U.S. Patent No. 10,803,435 B2 (Ex. 1001, "the '435 patent"). Paper 2 ("Pet."). Walmart Apollo, LLC ("Patent Owner") filed a Preliminary Response. Paper 8 ("Prelim. Resp."). Because Petitioner filed multiple other petitions challenging claims of the '435 patent, Petitioner also filed a Notice of Ranking Petitions for *Inter Partes* Review of U.S. Patent No. 10,803,435.¹ Paper 7 ("Not."). With the Board's authorization, Petitioner filed a Reply to Patent Owner Preliminary Response (Paper 9, "Reply to Prelim. Resp."), and Patent Owner filed a Preliminary Sur-reply (Paper 10, "Prelim. Sur-reply").

Under 35 U.S.C. § 314(a), an *inter partes* review may not be instituted unless the information presented in the Petition and any response thereto shows "there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition." An *inter partes* review may not be instituted on fewer than all claims challenged in the Petition. *SAS Inst., Inc. v. Iancu*, 138 S. Ct. 1348, 1359–60 (2018). Considering the parties' arguments and the evidence of record, we deny institution of *inter partes* review for the reasons provided below.

¹ Patent Owner argues that, due to Petitioner's filing of multiple petitions challenging the '435 patent, we should exercise discretion to deny institution of *inter partes* review in this proceeding. Prelim. Resp. 2–7. This argument is moot because, as explained below, we deny institution of *inter partes* review in this proceeding for reasons unrelated to Petitioner's multiple petitions challenging the '435 patent.

B. RELATED PROCEEDINGS

The parties note that the '435 patent is involved in *Sam's West, Inc. v. BJ's Wholesale Club Holdings, Inc.*, No. 6:22-cv-00587 (M.D. Fla. Mar. 22, 2022). Pet. 1; Paper 3, 1–2. Additionally, the parties note that claims of the '435 patent have also been challenged in IPR2022-01528, IPR2022-01563, and IPR2022-01564. Pet. 1; Paper 3, 1. The parties also note that the '435 patent is related to U.S. Patent 10,121,133 B2, the claims of which have been challenged in IPR2022-01471. Pet. 1; Paper 3, 1. The parties also note that the '435 patent is related to pending U.S. Patent Application No. 17/004,819. Pet. 1; Paper 3, 1.

C. THE '435 PATENT

To obviate scanning items at a retailer's traditional cashier or self-checkout station, the '435 patent discloses using a mobile device for self-checkout of a purchased item. Ex. 1001, 1:19–21, 1:41–54. The '435 patent discusses an embodiment in connection with Figure 1B, which is reproduced below.

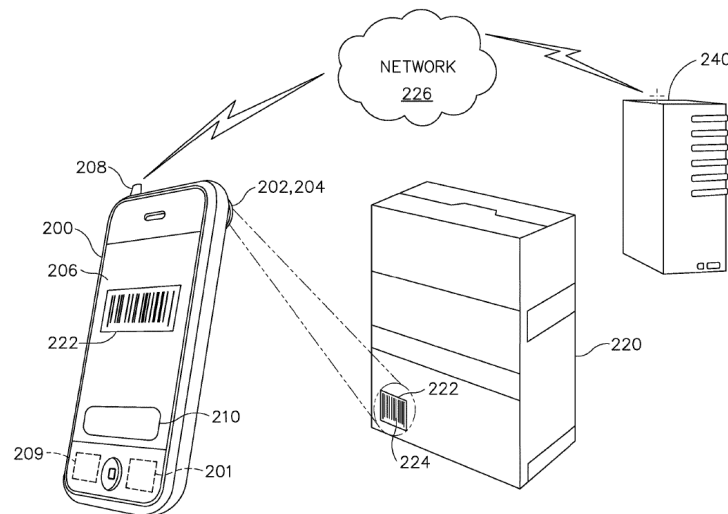


Fig. 1B

Figure 1B shows mobile device 200 getting information from item 220 and communicating over network 226 with remote server 240. *Id.* at 2:44–47, 4:39–41, 5:30–33.

Mobile device 200 includes processor 201, scanning module 202, display 206, and communications device 208. *Id.* at 4:41–44, 4:52–53. Scanning module 202 can receive item 220's identifying information 222 and convert it to a format readable by processor 201. *Id.* at 4:61–64. Processor 201 is connected with communications device 208, which can communicate with remote server 240 via network 226. *Id.* at 4:54–60, 5:3–5.

In Figures 3–18, the '435 patent shows miscellaneous schematic illustrations of mobile device 200 executing a mobile self-checkout application. *Id.* at 2:55–58. Figure 3 is reproduced below.

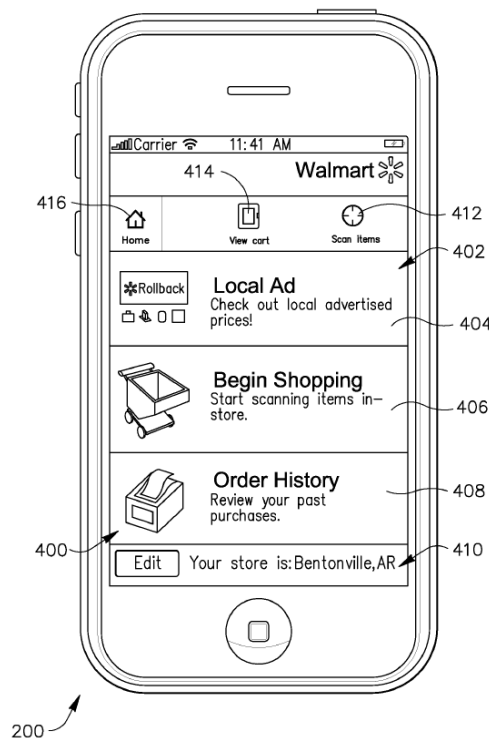


Fig.3

Figure 3 shows mobile device 200 with mobile self-checkout application 400 displaying home screen 402. *Id.* at 6:22–25.

Among other things, home screen 402 includes begin shopping button 406, “which allows the user to communicate his intention to begin shopping.” *Id.* at 6:26–30. “[W]hen selected, the begin shopping button 406 presents the user with a shopping screen 418,” as shown in Figure 4, which is reproduced below. *Id.* at 7:17–19.

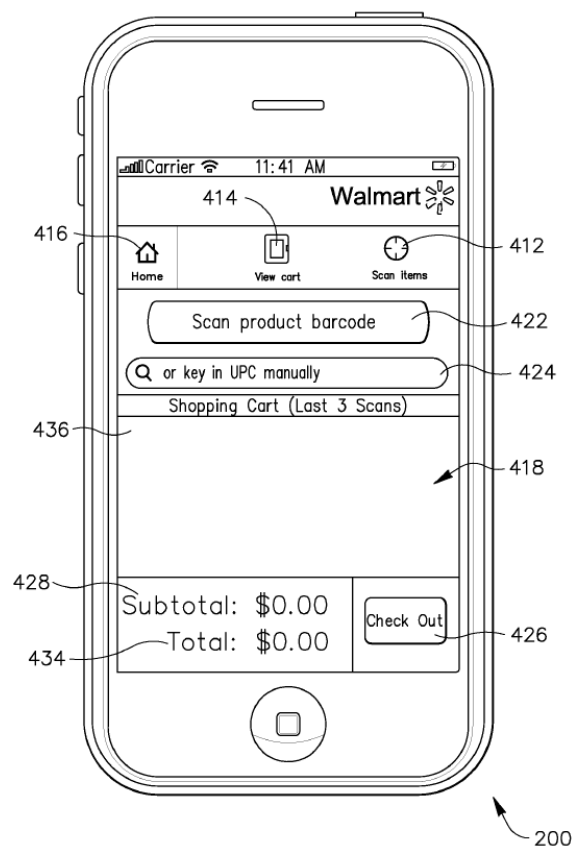


Fig.4

Figure 4 shows mobile device 200 displaying shopping screen 418, which presents various information and buttons. *Id.* at 7:17–23

Shopping screen 418 includes scan items button 412 and scan product barcode button 422. *Id.* at 6:49–53, 7:17–20, Fig. 4. Selecting either of these buttons activates scanning module 202 and displays scan item

screen 420, as shown in Figure 5, which is reproduced below. *Id.* at 6:54–58, 7:23–26.

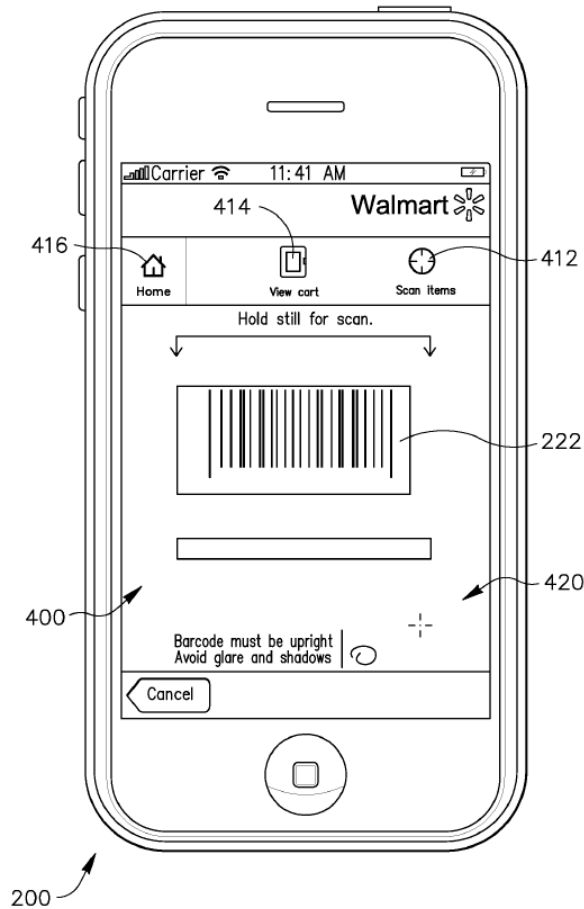


Fig.5

Figure 5 shows mobile device 200 with scan items screen 420 displayed. *Id.* at 6:54–56, 7:23–26.

Scan items screen 420 lets a user capture and enter item 220's identification information 222. *Id.* at 6:54–58. For example, a user can activate scanning module 202, which then receives item 220's identification information 222 and transforms it into a format that processor 201 can read and process. *Id.* at 7:64–8:2. Communications device 208 sends inputted identification information 222 to remote server 240. *Id.* at 8:7–11.

Then, remote server 240 may use identification information 222 to retrieve item information 432 that represents item 220, such as an item name, an item price and other item-related information. *Id.* at 8:11–19. Remote server 240 may send item information 432 to mobile device 200. *Id.* at 8:20–22. Item information 432 may be displayed on mobile device 200, as shown in Figure 6, which is reproduced below. *Id.* at 8:20–25.

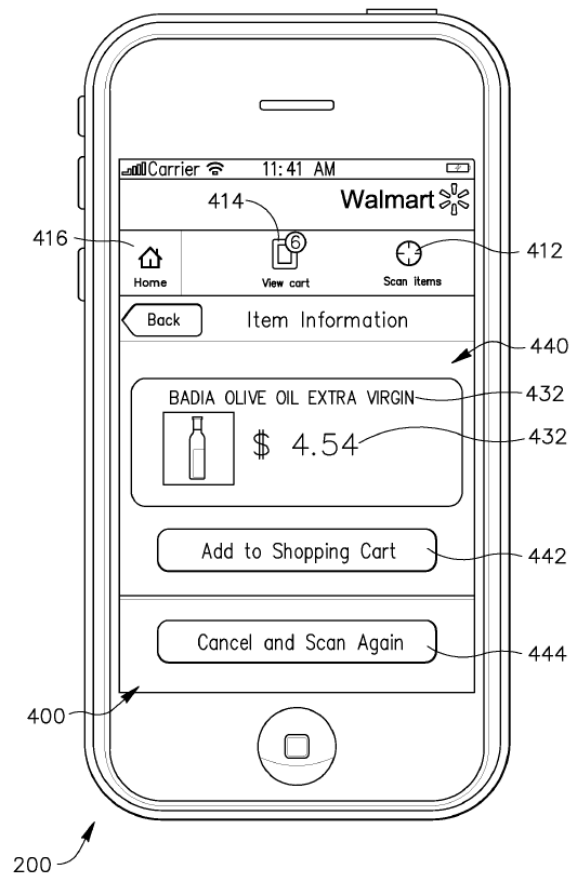


Fig.6

Figure 6 shows mobile device 200 with mobile self-checkout application presenting item information screen 440, which shows item information 432 for item 220. *Id.* at 8:22–25.

Among other options, item information screen presents an add to shopping cart button 442. *Id.* at 8:35–37. If the user verifies he or she wants

to purchase item 220, mobile device 200 or remote server 240 may generate virtual shopping cart 433 with item information 432 for item 220. *Id.* at 8:63–9:8. Mobile device 200 may display virtual shopping cart 433, as shown in Figure 8, which is reproduced below. *Id.* at 9:43–50.

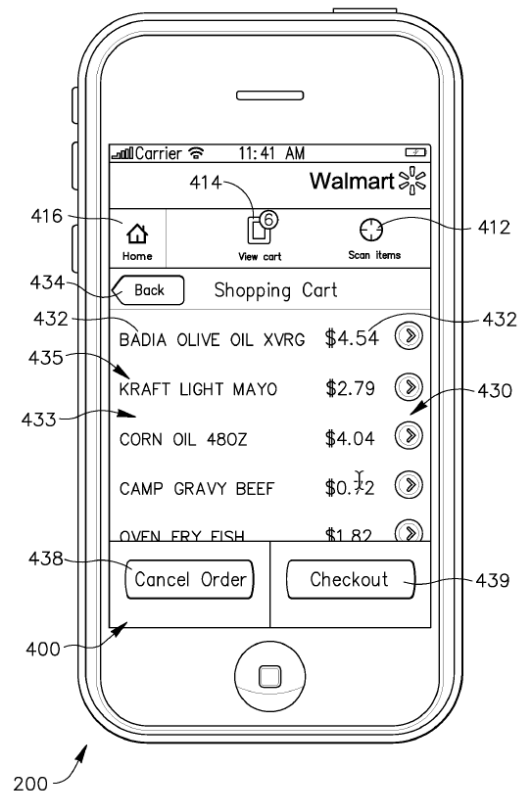


Fig.8

Figure 8 shows mobile device 200 with mobile self-checkout application 400 displaying shopping cart screen 430, which shows virtual shopping cart 433 and its contents 435. *Id.* at 9:40–49.

Shopping cart screen 430 provides a number of options, including the option to purchase, such as by selecting checkout button 439. *Id.* at 9:50–53. When the user elects to check out, “a total amount for all the contents of the virtual shopping cart 433 is calculated and an order 452 is generated” by mobile device 200 or remote server 240. *Id.* at 10:37–47.

After verifying accuracy of order 452 and an intent to buy, the user may choose to tender payment in various ways, including “via the mobile device 200 using mobile self-checkout application 400 or providing payment at either a traditional cashier or self-checkout station.” *Id.* at 10:52–11:4. Depending on which of these options the user elects, the cashier, the self-checkout station, mobile device 200, and/or mobile self-checkout application 400 interact with one another and server 240 in the payment process. *Id.* at 11:4–13:9. Once the user has paid, “virtual shopping cart 433 is then marked paid and a receipt is generated by the remote server 240, the traditional cashier, and/or the self-checkout station. The receipt is then provided to the user.” *Id.* at 12:30–37, 13:9–14.

D. ILLUSTRATIVE CLAIMS

Of the challenged claims, claims 1 and 10 are independent. Each of claims 2–9, and 11–14 depends, directly or indirectly, from one of independent claims 1 and 10. Claims 1 and 10 are illustrative and are reproduced below with certain reformatting:²

1. [1p] A method of converting a mobile phone into a mobile point-of-sale device, the method comprising:
 - [1a] executing a mobile self-checkout application on the mobile phone, the mobile self-checkout application allowing a user of the mobile phone to select items in a store and tender payment for the selected items via a user interface rendered by the mobile self-checkout application on a display of the mobile phone;
 - [1b] initiating a session between the mobile phone and a server, the session managed by a session manager;

² We have added the same labels that Petitioner applies to different portions of claims 1 and 10. *See* Pet. 15–34, 47–51.

- [1c] rendering the user interface on a display of the mobile device by the mobile self-checkout application;
- [1d] in response to selection of a scanning function via the user interface, activating an imaging device of the mobile phone to capture identification information associated with a physical object;
- [1e] activating a radio transmitter of the mobile phone to transmit the captured identification information associated with the physical object to the server executing a virtual terminal sales application;
- [1f] receiving, by the mobile phone, item information associated with the physical object from the server;
- [1g] generating, by the mobile phone, a virtual shopping cart to save the item information associated with the physical object;
- [1h] adding the item information of the physical object to the virtual shopping cart to maintain the order;
- [1i] receiving instructions via the user interface of the mobile self-checkout application to check out, receiving, by the server, payment information to complete a transaction for the order in response to selection of a checkout function via the user interface;
- [1j] completing, by the server, the transaction for the order based on the payment information; and
- [1k] transmitting, by the server, receipt information to the mobile phone in response to completion of payment for the order;
- [1l] rendering, by the mobile phone on the display, the receipt information in a machine- readable element; and
- [1m] optically scanning the machine - readable element rendered on the display of the mobile phone, by an optical scanning machine in communication with the server, to confirm completion of payment for the order.

Ex. 1001, 21:19–61.

10. [10p] A system comprising:
- [10a] a mobile phone executing a first application to allow a user of the mobile phone to select items in a store and tender payment for the selected items via a user interface rendered by the first application on a display of the mobile phone, the first application allowing a user of the mobile phone to:
 - [10b] initiate a session between the mobile phone and the server, the session managed by a session manager;
 - [10c] capture identification information for a physical object;
 - [10d] receive instructions via the user interface of the mobile self-checkout application to check out;
 - [10e] a server executing a second application to:
 - [10f] receive the identification information for the physical object from the mobile phone;
 - [10g] transmit item information based on the identification information for the physical object to the mobile phone, the mobile phone responsive to the identification information to add the item information of the physical object to a virtual shopping cart of the first application to maintain the order;
 - [10h] upon receipt of instruction from the user interface of the first application to check out, retrieve payment information associated with the user to complete a transaction for the order;
 - [10i] complete the transaction for the order;
 - [10j] transmit receipt information to the mobile phone in response to completion of payment for the order, the receipt information being renderable on a display of the mobile phone as a machine readable element; and
 - [10k] an optical scanning machine in communication with the server, the optical scanning machine scanning the machine-readable element rendered on the display of the mobile phone to confirm completion of payment for the order.

Id. at 22:33–67.

E. EVIDENCE

Petitioner relies on the following evidence:

(1) U.S. Patent No. 8,751,316 B1, issued June 10, 2014 (Ex. 1008, “Fletcher”).

(2) Korean Patent Publication No. 10-2007-087811, published Aug. 29, 2007 (Ex. 1009 with translation at Exs. 1010, 1021, collectively “Yong”).³

(3) U.S. Patent Application Publication No. 2009/0094100 A1, published Apr. 9, 2009 (Ex. 1011, “Xavier”).

(4) U.S. Patent Application Publication No. 2010/0082444 A1, published Apr. 1, 2010 (Ex. 1013, “Lin”).

(5) Declaration of Michael I. Shamos, Ph.D. (Ex. 1002).

F. ASSERTED GROUNDS OF UNPATENTABILITY

Petitioner challenges the patentability of claims 1–14 of the ’435 patent on the following grounds (Pet. 12–13):

Claims Challenged	35 U.S.C. §	Reference(s)
1–6, 8–14	103	Fletcher, Xavier
1–6, 8–14	103	Fletcher, Xavier, Lin
7	103	Fletcher, Xavier, Yong
7	103	Fletcher, Xavier, Lin, Yong

³ Patent Owner argues that “Yong should not be considered as prior art based on numerous issues that call into question Yong’s origin, authenticity, and translation accuracy.” Prelim. Resp. 2. For reasons unrelated to this argument, we deny institution of *inter partes* review, as explained below. Accordingly, in this proceeding, we need not reach Patent Owner’s argument that we should not consider Yong as prior art.

II. ANALYSIS

A. LEVEL OF ORDINARY SKILL

Petitioner contends that

[a] person having ordinary skill in the art (“POSITA”) as of the claimed priority date would have had a Bachelor’s degree in computer science, computer engineering, electrical engineering, or a related field or equivalent coursework or experience, and one to two years of experience with mobile device applications and retail POS systems. (Shamos ¶ 33.) More education can supplement practical experience and vice versa. (*Id.*)

Pet. 12. Patent Owner does not dispute Petitioner’s description of a person of ordinary skill in the art. Prelim. Resp. 18. For purposes of deciding whether Petitioner has demonstrated a reasonable likelihood of prevailing, we adopt Petitioner’s definition of a person of ordinary skill in the art, which we find consistent with the ’435 patent and the asserted prior art.

B. CLAIM CONSTRUCTION

In an *inter partes* review proceeding, a claim of a patent is construed using the same standard used in federal district court, including construing the claim in accordance with the ordinary and customary meaning of the claim as understood by one of ordinary skill in the art and the prosecution history pertaining to the patent. 37 C.F.R. § 42.100(b) (2020). According to the applicable standard, claim terms “are generally given their ordinary and customary meaning” as understood by a person of ordinary skill in the art in question at the time of the invention. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312–13 (Fed. Cir. 2005) (en banc) (citations omitted). Only those terms that are in controversy need be construed, and only to the extent necessary to resolve the controversy. *See Nidec Motor Corp. v. Zhongshan Broad Ocean*

Motor Co., 868 F.3d 1013, 1017 (Fed. Cir. 2017) (citing *Vivid Techs., Inc. v. America Sci. & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999)).

Asserting that “[i]n the Challenged Claims, only one term requires an express construction,” Petitioner proposes a construction for the claim language “virtual terminal sales application.” Pet. 13–14. Patent Owner argues that we need not construe any claim language expressly to deny the Petition. Prelim. Resp. 17–18.

These arguments overlook the most salient claim-construction issue affecting whether we institute *inter partes* review, specifically the meaning of “the server” in limitations 1e, 1f, 1i, 1j, 1k, and 1m. In arguing that “Fletcher discloses” limitation 1i, Petitioner asserts that “[e]ven if ‘the server’ in this step were construed by the Board to be limited to the same server as in antecedent steps 1e-1f, Fletcher teaches that.” Pet. 30. Patent Owner counters that Petitioner “fails to make its case,” arguing that Petitioner does not show Fletcher teaches using the same server for each of the actions recited in limitations 1e, 1f, 1i, 1j, 1k, and 1m. Prelim. Resp. 18–27.

In claim 1, “server” first appears in limitation 1b’s recitation of “a server.” Ex. 1001, 21:27–28. Every subsequent mention of “server” in claim 1 recites “the server.” *Id.* at 21:37, 21:40, 21:48, 21:51, 21:53, 21:60. Thus, grammatically, each time claim 1 recites “the server,” it refers back to the same “server” as in all previous recitations. Accordingly, claim 1’s plain meaning refers to the same server each and every time it recites “server.” *See Salazar v. AT&T Mobility LLC*, --- F.4th ---, 2023 WL 2778774 *3–4 (Fed. Cir. Apr. 5, 2023) (explaining claim language reciting element with definite article refers to same element previously recited) (citing *Baldwin*

Graphic Sys., Inc. v. Siebert, Inc., 512 F.3d 1338, 1342–43 (Fed. Cir. 2008); *Harari v. Lee*, 655 F.3d 1331, 1341 (Fed. Cir. 2011)). Neither party argues that any reason exists to construe claim 1’s recitations of “a server” and “the server” differently from their plain meanings. *See generally* Pet.; Prelim. Resp. We construe every one of claim 1’s recitations of “server” as referring to the same server (the “same-server requirement”).

C. ALLEGED OBVIOUSNESS OVER FLETCHALL AND XAVIER

1. *Overview of Fletchall*

Fletchall relates to a system and method involving a user employing a mobile device when buying a product in a retail store. Ex. 1008, 1:23–46. In addition to the mobile device, “[t]he system includes a product database accessible based on a reference of the retail store to store product information of the product indexed by a product identifier of the product and provide the product information based on the product identifier of the product.” *Id.* at 1:33–38. The mobile device has a product scanner operable to acquire a product identifier of the product. *Id.* at 1:38–40. The mobile device also includes a mobile point-of-sale (POS) application configured to interact with the product scanner and the product database to obtain product information based on the retail store’s reference and the product identifier.

Id. at 1:38–46. Fletchall explains that

[t]he method steps include obtaining a reference of the retail store using a mobile device of the user, accessing a product database for the retail store based on the reference of the retail store, obtaining, in the retail store, a product identifier of the product using the mobile device, retrieving product information from the product database based on the product identifier; and displaying the product information on the mobile device.

Id. at 1:24–31.

Fletchall shows an exemplary system in Figure 1. *Id.* at 1:64–65.

Figure 1 is reproduced below.

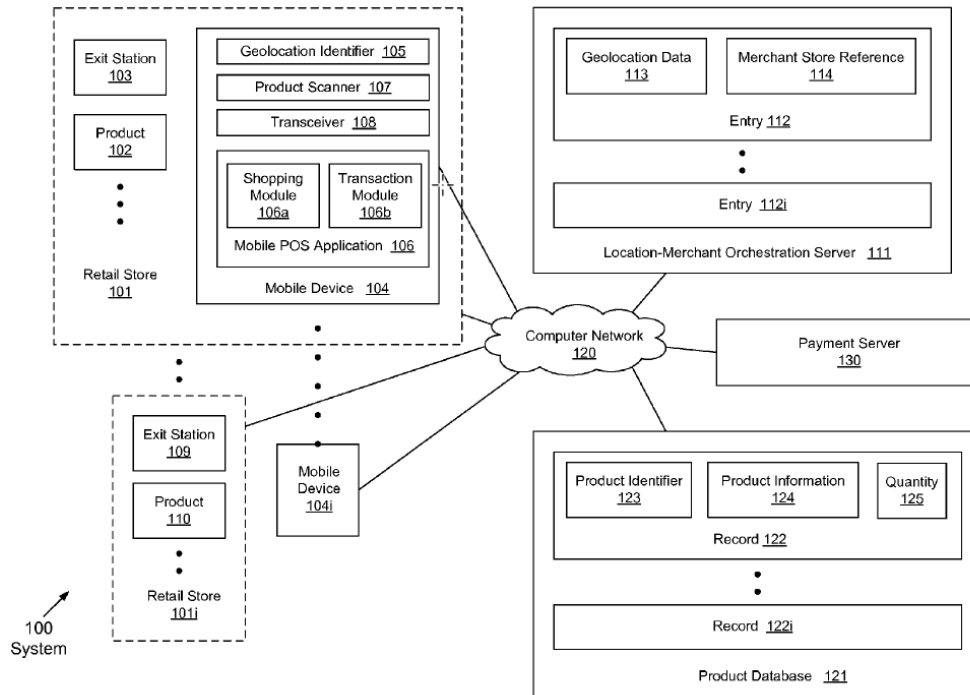


FIG. 1

Figure 1 shows system (100), which “includes one or more retail stores (101, 101*i*), one or more mobile devices (104, 104*i*), a location-merchant orchestration server (111), a product database (121), and a payment server (130).” *Id.* at 2:40–43. Fletchall explains that “[t]he modules shown in FIG. 1 may be omitted, repeated, and/or substituted among different embodiments of the invention. Accordingly, embodiments of the invention should not be considered limited to the specific arrangements of modules shown in [Figure] 1.” *Id.* at 2:35–39.

Computer network (120) may couple the components of system (100), such that system (100)’s components may use known protocols to communicate with one another. *Id.* at 2:43–48. “[C]omputer network (120) may include the Internet, enterprise Intranet, mobile phone service provider

network, the public switched telephone network (PSTN), etc.”

Id. at 2:53–56.

Mobile device (104) “includes a geolocation identifier (105), a product scanner (107), a transceiver (108), and a mobile POS application (106) having a shopping module (106*a*) and a transaction module (106*b*).” *Id.* at 5:48–52. Transceiver (108) is adapted to communicate via computer network (120) “with the location-merchant orchestration se[r]ver (111), the product database (121), the payment server (130), and/or other components of the system (100).” *Id.* at 3:59–64.

In one or more embodiments, in response to a user command when entering retail store (101), mobile POS application (106) may trigger geolocation identifier (105) to acquire mobile device (104)’s location, which represents retail store (101)’s location. *Id.* at 6:55–62. Mobile POS application (106) may transmit the geolocation data to location-merchant orchestration server (111) to acquire retail store (101)’s merchant store reference (114). *Id.* at 7:14–18.

When product (102) interests the user, the user may use mobile POS application (106) to activate product scanner (107) and acquire a product ID for product (102). *Id.* at 8:6–21. Using merchant store reference (114) and product (102)’s product ID, mobile POS application (106) may obtain product information (124) from product database (121). *Id.* at 8:39–58. Mobile POS application (106)’s shopping module (106*a*) may show product information (124) on mobile device (104). *Id.* at 9:1–3. Mobile POS application (106)’s transaction module (106*b*) may be adapted to

- (i) send payment information of the user to the payment server (130) for executing a payment of the purchase; (ii) provide an electronic receipt (not shown) to the mobile device (104) based

on the executed payment; (iii) notify the product database (121) to adjust inventory information reflecting the purchase; and (iv) interact with the exit station (103) for payment confirmation when exiting the retail store (101).

Id. at 9:17–25.

Fletchall discusses an example shopping experience in connection with Figure 3A, which is reproduced below.

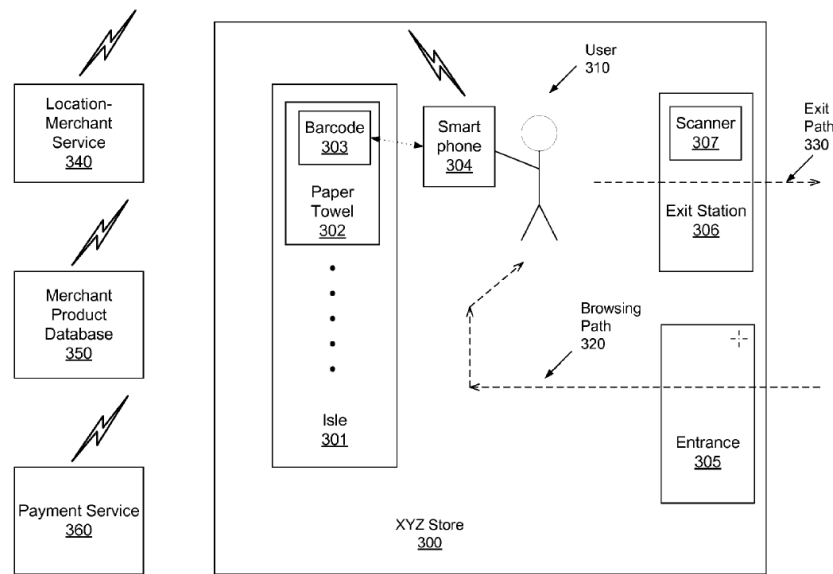


FIG. 3A

Figure 3A shows user (310) with smart phone (304) in XYZ store (300).

Id. at 12:52–58.

When going into XYZ store (300), user (310) starts the mobile POS application, which uses smart phone (304)’s GPS sensor to acquire GPS coordinates. *Id.* at 12:54–58. Employing location-merchant service (340), the mobile POS application matches the smartphone’s position to “that of the merchant operating the XYZ store (300).” *Id.* at 12:61–64. “The location-merchant service (340) is a web service hosted on a location-merchant orchestration server (e.g., location-merchant orchestration server (111) described above in reference to FIG. 1).” *Id.* at 12:12–15.

Having matched smart phone (304)'s location to XYZ store (300)'s location, the mobile POS application “connects to that merchant’s product database (350).” *Id.* at 12:61–65. Fletchall explains that

[t]he merchant product database (350) is a database containing product information Such as price and product description. The merchant product database (350) can be updated by the merchant operating the XYZ store (300) allowing customers (e.g., the user (310)) to instantly have the most up-to-date listings of products (e.g., paper towel (302)). The merchant product database (350) may be essentially the same as the product database (121), discussed above in reference to [Figure] 1.

Id. at 12:21–29.

“When the user (310) wishes to checkout, payment information may be entered into the smart phone (304) and submitted to the merchant through the payment service (360).” *Id.* at 13:9–11. When the payment is executed, an electronic receipt may be produced and supplied to smart phone 304. *Id.* at 13:13–16. Fletchall explains that “[t]he payment service (360) may be essentially the same as the payment server (130) discussed above in reference to [Figure] 1.” *Id.* at 12:45–47.

2. *Overview of Xavier*

Xavier discloses “a system in the area of wireless and web usage for an all-new way of easy and complete end-to-end shopping.” Ex. 1011 ¶ 2. Xavier’s system allows a user of a wireless enabled hand held device to “do[] the checkout process and payment all by himself without interacting with any shopkeepers.” *Id.* at code (57). The user’s hand held device may interact with a host computer to allow the user to shop and pay for products in a store. *Id.* ¶¶ 27–31. Noting that one technical challenge is “[s]ession handling,” Xavier discloses that

Session can be maintained by the client, server or by both. Without limitation the former has been chosen for this explanation. Client maintained session is efficient and easy to implement. It also reduces the load on the server. Shopping process is relatively slow so even slower handheld devices will be able to manage sessions. Typically in the second case where session is maintained by the server, the server can trace or revoke a client if needed.

Id. ¶ 31.

3. *Discussion*

In asserting obviousness of claims 1–6 and 8–14 over Fletchall and Xavier, Petitioner cites Fletchall for disclosing using a mobile device for retail purchases and Xavier for disclosing a session manager that manages a session between a mobile phone and a self-checkout system. *E.g.*, Pet. 14–21. Petitioner argues that a person of ordinary skill in the art would have been motivated to add Xavier’s session handling to Fletchall’s disclosure because a person of ordinary skill in the art “would have understood that a session manager would have been necessary to manage [Fletchall’s] communications between the mobile device and the product database.” *Id.* at 20–21.

As noted above, Patent Owner argues that “Petitioner fails to make its case.” Prelim. Resp. 19. According to Patent Owner, “Fletchall’s teachings do not align with what Petitioner alleges.” *Id.* at 2.

We consider first Petitioner’s assertion that independent claim 1 would have been obvious over Fletchall and Xavier.

a) Independent Claim 1

In asserting obviousness of independent claim 1 over Fletchall and Xavier, Petitioner relies on Fletchall alone as “disclos[ing]” or “teach[ing]” each of limitations 1a and 1c–1m. Pet. 16–18. Central to the parties’

present dispute, Petitioner asserts that Fletchall “discloses” or “teaches” all of claim 1’s limitations reciting “the server,” i.e., limitations 1e, 1f, 1i, 1j, 1k, and 1m. *Id.* at 22–25, 28–35.

For example, Petitioner argues that Fletchall “discloses” limitation 1f’s recitation of “receiving, by the mobile phone, item information associated with the physical object from the server.” *Id.* at 25. Petitioner explains that

Fletchall discloses the mobile phone receives item information (e.g. price of the product, description of the product) from the server (e.g. the product database). (Ex. 1008 8:53–62, 10:54–60; Shamos ¶ 184.) For example, Fletchall states: “[i]n response to sending the product identifier, the mobile device receives the corresponding product information (e.g., price of the product, description of the product, etc.) from the product database.” (Ex. 1008 10:57–60; Shamos ¶ 189.)

Id.

Petitioner argues that Fletchall also “discloses” limitation 1i’s recitation of “receiving instructions via the user interface of the mobile self-checkout application to check out, receiving, by the server, payment information to complete a transaction for the order in response to selection of a checkout function via the user interface.” *Id.* at 28. Addressing “the server” part of this limitation, Petitioner argues that “Fletchall discloses that ‘payment information’ is sent at step 211 . . . from the mobile device 104 to ‘a payment server’ to purchase items.” *Id.*

Thus, for limitation 1f’s recitation of “the server,” Petitioner cites Fletchall’s “product database,” whereas for limitation 1i’s recitation of “the server,” Petitioner cites Fletchall’s “payment server.” *Id.* at 25, 28. Petitioner nonetheless contends that “[e]ven if ‘the server’ in [limitation 1i] were construed by the Board to be limited to the same server as in

antecedent steps 1e-1f, Fletchall teaches that also.” *Id.* at 30 (citing Ex. 1002 ¶ 210). Petitioner explains that “Fletchall teaches that the payment server 130, the product database 121, and exit station 103, 109 can communicate with each other.” *Id.* (citing Ex. 1002 ¶ 210; Ex. 1008 2:46–48, 4:50–55, 5:2–4). Petitioner also argues that “Fletchall further teaches that the product database 121 can be hosted on a merchant server (Ex. 1008 3:51–52), and be part of the common system 100 that includes the payment server 130.” *Id.* at 31 (citing Ex. 1002 ¶ 211; Ex. 1008 2:34–43, 3:51–52). According to Petitioner,

[b]ecause the payment server 130 communicates with the product database 121 and are part of a common system 100, and both of which communicate with the mobile device 104, Fletchall teaches a server receiving payment information to complete a transaction in response to user interaction with the “checkout” button, if the server is construed to be same server performing steps in antecedent steps 1e-1f.

Id. (citing Ex. 1002 ¶ 212). These arguments appear substantially identical to the supporting testimony of Dr. Shamos that Petitioner cites. *Compare* Pet. 30–31, *with* Ex. 1002 ¶¶ 210–212.

Patent Owner argues that Petitioner’s arguments conflict with Fletchall’s disclosure of a distributed system architecture. Prelim. Resp. 23. Patent Owner contends that Fletchall discloses “a distributed computing architecture having multiple, separate computing devices including a payment server 130 . . . and a product database 121 Fletchall provides no description indicating that these separate computing devices are one in the same.” *Id.* Patent Owner notes that “Fletchall describes that the system components illustrated in [Figure] 1 communicate with each other using computer network 120 and ‘network communication protocols known to

those skilled in the art.” *Id.* at 20 (quoting Ex. 1008, 2:40–48). Patent Owner disputes the logic of Petitioner’s argument that product database (121) and payment server (130) form part of the same server because they can communicate with one another. *Id.* at 24. Patent Owner also faults the reasoning in Petitioner’s argument that Fletchall discloses the possibility that product database be “hosted on a merchant server.” *Id.* at 26.

Weighing the parties’ arguments and evidence, we find Petitioner has not demonstrated a reasonable likelihood of prevailing on its challenge of independent claim 1 as allegedly obvious over Fletchall and Xavier. As discussed above in Section II.B, we construe claim 1’s recitations of “the server” as all limited to the same server. Thus, as Petitioner contemplated, “the server” recited in limitation 1i is “limited to the same server as in antecedent [limitations 1e–1f].” Pet. 30.

Petitioner inadequately supports its position that “Fletchall teaches that also.” *Id.* at 30–31. Petitioner’s and Dr. Shamos’s explanations do not persuasively support their position that Fletchall teaches product database (121) and payment server (130) are the same server.⁴ Pet. 30–31; Ex. 1002 ¶¶ 210–212. For example, the observation that product database (121) and payment server (130) are part of system (100) and can communicate with one another via computer network (120) does not make product database (121) and payment server (130) part of the same server. Pet. 30–31; Ex. 1002 ¶¶ 210–212; Prelim. Resp. 24. As Patent Owner

⁴ Also, to the extent Petitioner and Dr. Shamos have some other basis for contending that Fletchall teaches using the same server in performing the actions recited in limitations 1f and 1i, they do not support that view with sufficiently persuasive evidence or explanation.

argues, following Petitioner’s reasoning would lead to the untenable conclusion that any two components of system (100) that can communicate with one another via computer network (120), including mobile device (104) and product database (121), would be part of the same server. Pet. 30–31; Prelim. Resp. 24–25. Accordingly, we find Petitioner’s and Dr. Shamos’s contentions unpersuasive.

We also find unavailing Petitioner’s and Dr. Shamos’s observation that “Fletchall teaches that the product database 121 can be hosted on a merchant server . . . and be part of the common system 100 that includes payment server 130.” Pet. 31; Ex. 1002 ¶ 211. Hosting product database (121) on a merchant server does not make product database (121) and payment server (130) part of the same server. Nor does including product database (121) and payment server (130) within system (100).

b) Independent Claim 10

Petitioner’s challenge of independent claim 10 as allegedly obvious over Fletchall and Xavier suffers from problems substantively similar to the problems with Petitioner’s challenge of independent claim 1 as allegedly obvious over Fletchall in view of Xavier. Independent claim 10 requires that the same server perform the actions in each of limitations 10f–10j. Ex. 1001, 22:46–62.

Limitation 10g requires the server “transmit item information based on the identification information for the physical object to the mobile phone.” *Id.* at 22:48–49. Addressing this limitation, Petitioner argues that “as described for [limitation 1f], Fletchall discloses the server transmits item information based on the identification for the physical object to the mobile phone.” Pet. 50. Thus, Petitioner again relies on its argument that “Fletchall

discloses the mobile phone receives item information (e.g. price of the product, description of the product) from the server (e.g. the product database).” *Id.* at 25.

Limitation 10h requires the server “upon receipt of instruction from the user interface of the first application to check out, retrieve payment information associated with the user to complete a transaction for the order.” Ex. 1001, 22:54–57. Addressing this limitation, Petitioner argues that “[a]s described for [limitation 1i], Fletchall discloses this element.” Pet. 50. Thus, Petitioner again relies on its argument that “Fletchall discloses that ‘payment information’ is sent at Step 211 . . . from the mobile device 104 to ‘a payment server’ to purchase items.” *Id.* at 28.

Thus, Petitioner cites different components of Fletchall’s system (100), specifically product database (121) and payment server (130), as allegedly performing the actions recited in limitations 10g and 10h. Facially, this fails to meet claim 10’s requirement that the same server perform the actions in both limitations 10g and 10h. When addressing limitation 10h, Petitioner cites its arguments that Fletchall teaches product database (121) and payment server (130) are part of the same server. As explained above in Section II.C.3.a, Petitioner has not supported these arguments sufficiently. Accordingly, Petitioner fails to demonstrate a reasonable likelihood of prevailing on its assertion that independent claim 10 would have been obvious over Fletchall and Xavier.

c) Dependent Claims 2–4, 6, 8, 9 and 11–14

Petitioner’s challenges to dependent claims 2–4, 6, 8, 9, and 11–14 suffer from the same problems as Petitioner’s challenges to independent claims 1 and 10. When addressing these dependent claims, after

incorporating its discussion of either independent claim 1 or 10, Petitioner addresses the limitation(s) recited directly within each dependent claim. Pet. 35–38, 42–47. As with Petitioner’s discussion of independent claim 1, Petitioner’s discussion of dependent claims 2–4, 6, 8, and 9 does not address sufficiently the same-server requirement of limitations 1f and 1i, which are also limitations of dependent claims 2–4, 6, 8, and 9. For the reasons explained above in Section II.C.3.a, Petitioner’s incorporation of its claim 1 discussion does not address sufficiently the same-server requirement. Nor does Petitioner’s discussion of the limitations recited directly in dependent claims 2–4, 6, 8, and 9 address sufficiently the same-server requirement. Accordingly, Petitioner does not demonstrate a reasonable likelihood of establishing unpatentability of dependent claims 2–4, 6, 8, and 9. For substantively similar reasons, Petitioner’s challenges of dependent claims 11–14 fail to adequately address the requirement that the same server perform the actions of limitations 10g and 10h, which are also limitations of claims 11–14. Accordingly, Petitioner does not demonstrate a reasonable likelihood of prevailing on its challenge of dependent claims 11–14 as allegedly obvious over Fletchall and Xavier.

d) Dependent Claim 5

Dependent claim 5 recites “[t]he method of claim 1, wherein one of a plurality of virtual sales terminal applications executing on the server processes the payment for the transaction after the transaction is transferred to one of the plurality of virtual sales terminals from either the mobile phone or from another virtual sales terminal application.” Ex. 1001, 22:13–18. When addressing claim 5, Petitioner argues, among other things, that “a [person of ordinary skill in the art] would find it obvious to combine

functions (VTSAs) of the server 111, the server 130, and merchant server hosting the product database 121 into the same server.” Pet. 41. As explained above in Sections II.C.3.a–c, Petitioner fails to demonstrate a reasonable likelihood of establishing unpatentability of either of challenged independent claims 1 and 10 or any of challenged dependent claims 2–4, 6, 8, 9, and 11–14. Considering this, to the extent Petitioner’s arguments and evidence may demonstrate a reasonable likelihood of prevailing on its challenge of dependent claim 5 as allegedly obvious over Fletchall and Xavier, we do not find that instituting *inter partes* review would use the Board’s or the parties’ resources efficiently. See 35 U.S.C. 316(b).

D. ALLEGED OBVIOUSNESS OVER FLETCHALL, XAVIER, AND LIN

In support of its position that claims 1–6 and 8–14 would have been obvious over Fletchall, Xavier, and Lin, Petitioner presents

additional arguments only with respect to limitations 1h and 10g, and dependent Claim 9, based on the Fletchall-Xavier-Lin combination, if the Board were to find the Fletchall-Xavier combination deficient. The Fletchall-Xavier combination discloses all other elements of independent Claims 1 and 10, and all dependent Claims 2-6, 8-9, and 11-14 as described for Ground 1, and applies in the same manner here for Ground 2.

Pet. 53. In light of this, for the reasons discussed above in Sections II.C.3.a–c, Petitioner fails to demonstrate a reasonable likelihood of establishing that either of independent claims 1 and 10 or any of challenged dependent claims 2–4, 6, 8, 9, and 11–14 would have been obvious over Fletchall, Xavier, and Lin. Given this, to the extent Petitioner’s arguments and evidence may demonstrate a reasonable likelihood of prevailing on its challenge of dependent claim 5 as allegedly obvious over Fletchall, Xavier,

and Lin, we do not find that instituting *inter partes* review would use the Board's or the parties' resources efficiently.

E. ALLEGED OBVIOUSNESS OVER FLETCHALL, XAVIER, AND YONG

In this challenge, Petitioner argues that “[t]he Fletchall-Xavier combination renders Claim 1 obvious as discussed in Ground 1,” citing Yong as disclosing the limitation recited directly in dependent claim 7. As discussed above in Section II.C.3.a, Petitioner's arguments that claim 1 would have been obvious over Fletchall and Xavier do not address limitations 1f and 1i adequately. Petitioner's arguments about Yong allegedly disclosing the limitation recited directly in claim 7 also fail to address limitations 1f and 1i. Pet. 56–58. Accordingly, Petitioner does not demonstrate a reasonable likelihood of establishing obviousness of claim 7 over Fletchall, Xavier, and Yong.

F. ALLEGED OBVIOUSNESS OVER FLETCHALL, XAVIER, YONG, AND LIN

For substantially the same reasons discussed above in Section II.E that Petitioner's challenge of dependent claim 7 based on Fletchall, Xavier, and Yong does not adequately address limitations 1f and 1i, Petitioner also fails to adequately address these limitations in its challenge of dependent claim 7 based on Fletchall, Xavier, Yong, and Lin. See Pet. 58–60. Accordingly, Petitioner does not demonstrate a reasonable likelihood of establishing obviousness of dependent claim 7 over Fletchall, Xavier, Yong, and Lin.

III. CONCLUSION

As explained above in Sections II.C–F, Petitioner fails to demonstrate a reasonable likelihood of prevailing on its challenge of claims 1–4 and 6–14, and we determine that it would not be an efficient use of Board

resources to institute an *inter partes* review. *See Chevron Oronite Co. v. Infineum USA L.P.*, IPR2018-00923, Paper 9 at 10–11 (PTAB Nov. 7, 2018) (informative); *see also Deeper, UAB v. Vexilar, Inc.*, IPR2018-01310, Paper 7 at 41–43 (PTAB Jan. 24, 2019) (informative). Accordingly, we exercise discretion under 35 U.S.C. § 314(a) to decline to institute *inter partes* review.

IV. ORDER

For the reasons given, it is:

ORDERED that the Petition is *denied* as to all challenged claims of the '435 patent and no trial is instituted.

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