

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

CLOVER NETWORK, LLC,
Petitioner,

v.

CLOUDOFCHANGE, LLC
Patent Owner.

Case IPR2023-00287
Patent 11,226,793

DECLARATION OF ALEX CHENG

Executed on March 13, 2023

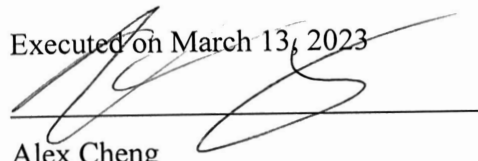

Alex Cheng

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I, Alex Cheng, declare as follows:

I. INTRODUCTION

1. My name is Alex Cheng. I am over twenty-one years old; I am fully competent to make this declaration. I understand that willful false statements and the like are punishable by fine or imprisonment, or both (18 U.S.C. 1001) and may jeopardize the validity of the application or any patent issuing thereon. All statements made of my own knowledge are true and all statements made on information and belief are believed to be true.

2. I have been retained by Patent Owner CloudofChange, LLC (“CloudofChange”) as an independent technical expert.

3. Unless otherwise noted, the statements made herein are based on my personal knowledge, and if called to testify, I would testify competently to the matters contained herein. For my work in connection with this case, I am being compensated at my usual rate of \$525 per hour. My compensation does not depend on the content of my opinion or the outcome of this proceeding.

4. In formulating my opinions, I have relied upon my knowledge, training, and experience in the relevant art. I have knowledge of the facts set forth in this declaration based on my review of these patents and my technical expertise. My review of these patents followed my ordinary practice. I began

by reading the patents themselves and then reviewed their respective prosecution histories.

I. EXPERIENCE AND QUALIFICATIONS

5. My qualifications and publications are listed on the attached copy of my curriculum vitae, which is Appendix A to this declaration.

6. By way of overview, I have a Bachelor's degree in Science from the University of Toronto. I have over 30 years of experience in the field of computers and software development including e-commerce, telecommunications, and information technology.

7. I am currently a consultant providing advice regarding computer technology to: financial, telecommunications, food services, real estate, manufacturing, transportation, retail, and government sectors.

8. I have specific consulting and testifying experience in patent and civil cases regarding POS, call center, e-commerce, financial card transactions, and analysis of IT governance and implementation. A list of the cases on which I have consulted is attached as Appendix B to this declaration.

9. My experience prior to consulting includes an extensive background in POS terminals. For example, major projects I worked on for Rogers Cantel, I managed cellular billing system development and later designed and built Wireless POS terminals. At Advantis, that later became IBM Global Network, I supported

numerous retailer POS systems in this IBM/Sears joint venture to resell Sears' POS network infrastructure.

10. I held international leadership positions while at IBM and AT&T that included subscription services and I have overseen multinational staff on projects and services spanning over 50 countries.

11. Further detail on my education, work experience, and the cases in which I have previously given testimony in the past five years is contained in my CV.

II. MATERIALS CONSIDERED

12. In preparing this Declaration, I have reviewed U.S. Patent No. 11,226,793 (the "'793 Patent") and related prosecution history, and Petitioner's Petition for *Inter Partes* Review of U.S. Patent No. 11,226,793. I have also reviewed U.S. Patent No. 9,400,640 (the "'640 Patent") and U.S. Patent No. 10,083,012 (the "'012 Patent"), as well as their complete prosecution history. I also have reviewed the exhibits to the Petition, CloudfChange's Exhibits, and all other documents or materials I refer to in this declaration.

III. LEGAL STANDARDS

13. I have been instructed that institution of an *inter partes* Review ("IPR") is discretionary and the Board may deny institution under § 325(d) where the petition includes the same or substantially the same prior art or arguments that previously

were presented to the Office. I also have been instructed that the Board addresses § 325(d) by applying a two-part framework: (1) whether the same or substantially the same art previously was presented to the Office or whether the same or substantially the same arguments previously were presented to the Office; and (2) if either condition of first part of the framework is satisfied, whether the petitioner has demonstrated that the Office erred in a manner material to the patentability of challenged claims.

14. I also have been instructed that the Board looks to the following factors when applying the two-part framework: (a) the similarities and material differences between the asserted art and the prior art involved during examination; (b) the cumulative nature of the asserted art and the prior art evaluated during examination; (c) the extent to which the asserted art was evaluated during examination, including whether the prior art was the basis for rejection; (d) the extent of the overlap between the arguments made during examination and the manner in which Petitioner relies on the prior art or Patent Owner distinguishes the prior art; (e) whether Petitioner has pointed out sufficiently how the Examiner erred in its evaluation of the asserted prior art; and (f) the extent to which additional evidence and facts presented in the Petition warrant reconsideration of prior art or arguments.

15. I have been instructed that patent claims are construed as they would be understood by a person of ordinary skill in the art. I have been instructed that

factors that may be considered in determining level of ordinary skill in the art include: (i) the educational level of the inventor; (ii) type of problems encountered in the art; (iii) prior art solutions to those problems; (iv) rapidity with which innovations are made; (v) sophistication of the technology; and (vi) educational level of active workers in the field. I also have been instructed that not all such factors may be present in every case, and one or more of these or other factors may predominate in a particular case. The opinions stated in this declaration are from the perspective of a person of ordinary skill in the art (“POSITA”).

16. When interpreting claim terms, I have been informed and understand that one must endeavor to employ the perspective of a person of ordinary skill in the relevant art at the time of invention. When interpreting the claims, I understand that the ordinary meaning of the language within the claims should be utilized unless the specification or prosecution history clearly provides reason for applying a different interpretation. In other words if a claim term has a well-known and understood meaning to a person of ordinary skill in the art that meaning should be applied to the claims unless the patentee states a clear and unambiguous alternative meaning that they intend to be in force. I have been informed that any terminology in the preamble that limits the structure of the claimed invention must be treated as a claim limitation.

17. I have been informed that a patent is invalid for indefiniteness if its claims, read in light of the specification delineating the patent, and the prosecution history, fail to inform, with reasonable certainty, those of ordinary skill in the art about the scope of the invention.

18. I have been informed that to institute an IPR, Petitioner bears the burden to establish a reasonable likelihood of prevailing with respect to at least one challenged claim. Petitioner has the burden to identify with particularity the evidence that supports the grounds for the challenge to each claim. I have been informed that Petitioner's burden never shifts to CloudofChange. I have been informed that once instituted, Petitioner bears the ultimate burden of proof to prove unpatentability by a preponderance of evidence, and this burden never shifts to Patent Owner.

19. I understand that Petitioner's burden of proof is not satisfied by employing mere conclusory statements. I further understand that obviousness determinations based on conclusory and unsupported statements risks allowing the challenger to use the challenged patent as a roadmap to reconstruct the claimed invention using disparate elements from prior art—*i.e.*, the impermissible *ex post* reasoning and hindsight bias.

20. I have been instructed that obviousness is a question of law premised on underlying issues of fact, all of which must be considered, including: (i) the scope

and content of the prior art; (ii) the level of ordinary skill in the art; (iii) the differences between the claimed invention and the prior art; and (iv) secondary considerations of nonobviousness. I understand that a patent for a claimed invention may not be obtained if the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious before the effective filing date of the claimed invention to a person having ordinary skill in the art to which the claimed invention pertains.

21. I understand that each element of a claim must be disclosed in the prior art references for a claim to be found obvious. I further understand that a patent is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art. I further understand that hindsight reconstruction of the claimed invention must be carefully guarded against.

22. I understand that although a problem in the prior art may form the basis of a motivation to combine, Petitioner must demonstrate the alleged problem was known in the art or that Petitioner's formulation of the problem was derived directly from the prior art rather than from the challenged claims. I further understand that defining the problem in terms of its solution reveals improper hindsight in the selection of the prior art relevant to obviousness. I further understand that the rationale must be more than mere conclusory statements; instead, there must be some

articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.

23. I have been instructed and understand that where each of the references of a purported combination independently accomplishes similar functions and operates effectively to achieve their purposes, a POSITA may have no reason to combine the features of those references. I understand that while a prior art reference may support any finding apparent to a person of ordinary skill in the art, prior art references that address different problems may not, depending on the art and circumstances, support an inference that the skilled artisan would consult both of them simultaneously.

24. I understand that the proponent of objective indicia of nonobviousness must establish a nexus between the evidence and the merits of the claimed invention, and that there is no nexus unless the evidence presented is reasonably commensurate with the scope of the claims. I further understand that CloudofChange is entitled to a presumption of nexus when CloudofChange shows that the asserted objective evidence is tied to a specific product and that product embodies the claimed features, and is coextensive with them. I understand that the purpose of the coextensiveness requirement is to ensure that nexus is only presumed when the product tied to the evidence of secondary considerations is the invention disclosed and claimed.

25. I understand that the failure of others to provide a feasible solution to a long-standing problem is probative of nonobviousness. I further understand that establishing a long-felt need first requires objective evidence that an art recognized problem existed for a long period of time without a solution; the long-felt need must not have been satisfied by another before the invention by the applicant; and the invention must satisfy the long-felt need.

26. For the '793 Patent, I have assumed the time of the invention is February 5, 2008.

IV. ONE OF ORDINARY SKILL IN THE ART

27. For purposes of this declaration, I understand that Petitioner's grounds challenging the patentability of the Challenged Claims of the '793 Patent are based on obviousness. I further understand that Petitioner bears the burden to prove that the Challenged Claims would have been obvious to a person of ordinary skill in the art ("POSITA") at the time of the invention. I further understand that Petitioner's burden of proof cannot be met based on conclusory statements and hindsight bias.

28. In the Petition, Petitioner proposes that,

[a] "person of ordinary skill in the art" (POSITA) at the time of the effective filing date of the '793 patent would have been someone with a working knowledge of designing and developing web-based software and systems. A POSITA

would have a Bachelor of Science in computer science or a related field, and approximately two years of professional experience or equivalent study in the design and development of web-based software and systems, including web-based POS systems. Additional graduate education could substitute for professional experience, or significant experience in the field could substitute for formal education.

Petition, 8.

29. In my opinion, a POSITA in the field of the '793 Patent at the time of the effective filing date of the '793 Patent would have a Bachelor of Science in computer science or a related field, and approximately two years of professional experience or equivalent study in the design and development of retail point of sale ("POS") systems, including experience with building POS screens. Additional graduate education could substitute for professional experience, or significant experience in the field could substitute for formal education.

30. In my opinion, Petitioner's proposed definition of a POSITA does not require any specific experience with retail POS systems—namely building POS screens—that is the subject matter of the '793 Patent. Instead, Petitioner proposes a definition for a POSITA that references "approximately two years of professional experience or equivalent study in the design and development of web-based software and systems, including web-based POS systems." Petition, 8.

31. In my opinion, Petitioner's proposed definition of a POSITA makes

experience in “web-based POS systems” optional. That is, a POSITA could have general professional experience in web-based software, yet no experience with the technology, state of the art, and problems particular to the entire field of web-based POS systems at the time of the filing of the ’793 Patent.

32. In my opinion, CloudfChange’s proposed definition of a POSITA remedies this deficiency by including experience or equivalent study in the field of the ’793 patent: retail point of sale POS systems, including experience with building POS screens.

33. I understand that Petitioner has provided a declaration of Dr. Todd Mowry (Ex. 1002). In my opinion, under a proper definition of a POSITA that includes experience or additional study in the field of retail point of sale POS systems, including experience with building POS screens, Todd Mowry is not a POSITA with reference to the ’793 Patent. I offer myself as a POSITA on the basis of my direct experience with retail POS systems. In the early 90s, while at Rogers Cantel I designed and built some of the first wireless POS terminals using off the shelf components. Later, I joined Advantis an IBM/Sears joint venture that resold the Sears POS network to other retailers. While there I supported POS networks in use by several retailers and was involved in the software of IBM outsourced POS systems in use at Sears, Canadian Tire, and Blinds-to-Go. Advantis later became IBM Global Network and was later acquired by AT&T. While at AT&T I was head

of the International Custom Engineering Division where among other projects we designed international POS networks. More recently, I have been involved in consulting work where I have been an expert in cases involving retail POS systems. This retail POS system case work has included the review of POS system source code for patent infringement (including, but not limited to Sam's Club, and H-E-B) for servers and POS terminals that were PC, iOS and Android based. In December 2022, I had the opportunity to review source code of POS systems offered by Lightspeed, the petitioner in IPR2022-01143 (which is the matter Petitioner is seeking to join).

V. TECHNOLOGY BACKGROUND

34. I understand that the '793 Patent claims priority to the '640 Patent, which was filed February 5, 2008. Ex. 1001, 1. I further understand that there is not a dispute of the priority date.

35. In 2008, when U.S. Patent No. 9,400,640 (the parent application of the '793 Patent) was filed, how POS content was created and implemented was important to the claimed invention. It remains important today. Prior to the '640 Patent, typically each POS vendor had its own proprietary set of technologies and methods in place to create, implement, and manage POS content. POS hardware vendors' business model typically included a services division that produced revenues for the company to create this content for merchants. Additionally, many

third parties existed which charged merchants to maintain this content. Accordingly, there were business reasons in place that provided incentives for companies to make these technologies difficult for merchants to use. That is, prior to the '640 Patent, point of sale (POS) systems were tethered to in-store local servers and required expensive and time-consuming manual software configuration for store and restaurant owners to make even minor changes to menu items or product offerings. Historically, “only specially trained people” could build or change these POS systems, which were still “difficult” and “prone to error” leading to store owners to “to retain older, inaccurate, out-of-date POS screens in order to avoid the POS screen editing process.” Ex. 1001, 1:46-52. The patented invention, a web-based POS builder system, eliminated these challenges by providing an inexpensive and efficient method for “assist[ing] non-expert business operators in building, editing and testing a [POS] system to manage their businesses” while simultaneously removing the requirement of purchasing and maintaining on site computer servers for POS systems. *Id.* at Abstract, 5:47-48.

36. “Web-based” technologies started to take hold in the mid-to-late 2000s when wide-spread adoption started taking place. Prior to this time, legacy technologies—mainframes and client/server technologies—were the most predominant and the legacy computing style was typically centralized and proprietary. Most POS vendors managed POS content using a large, centralized

computer with connected remote computers, all under a proprietary connection. Outside of the POS industry, “web-based” technologies began to sever this link and allowed for open source (generally free, standardized technology stacks) as well as standardized computing languages that allowed for an expanded pool of resources and benefits for lay persons.

37. In contrast to the legacy computing environment, with private, proprietary connections, the Internet (web-based) allowed for more open, more prolific, and more standardized connectivity. This connectivity enabled what is now called the “Cloud.” While “cloud” based technology is prolific in today’s computing environment, tactical application of cloud computing was in its formative stages in the mid-to-late 2000s. The term itself had not proliferated widely, but the use of the underlying technologies for the business model of Software as a Service (SaaS) and “Hosted” solutions were becoming common in the mid to late 2000s. Simply put, Cloud computing is a computing style in which the actual computations or data is location agnostic.

38. Additionally, in February 2008, developers and maintainers of POS systems were struggling to find solutions to problems related to access management, application security, and encryption. Ex. 1001, 4:56-62. Access management (login and password), application security (segregated database instances), and encryption are well known requirements for web servers. These requirements are documented

in the '793 Patent specification to describe the web server of the Patent.

39. By February 2008, numerous security breaches had been reported by the press. One of the largest was the exposure of over 45 million payment card numbers stored in the POS system of TJ Maxx. Ex. 2017. Due to data breaches, by February 2008, to maintain consumer trust in the use of credit and debit cards, the Payment Card Industry Data Security Standard (“PCI DSS”) was established by Visa, MasterCard, Discover Financial Services, JCB International and American Express. PCI DSS compliance by June 30, 2007 would grant safe harbor for retailers from fines of \$500,000 per breach. EX2018. In turn, this would require providers of POS systems and services to be PCI DSS compliant as well. Even with the motivation to avoid the risk of stiff fines, a 2007 Forrester Research survey revealed that only 60 percent of US respondents planned to be PCI DSS compliant by the end of 2008. The three largest reasons for the delay were identified as access management, application security and encryption. EX2019. These problems proved to be so severe that by 2010, it was reported that PCI compliance from 2007 to 2009 only rose from 46% to 51%. North American organizations are still not where they should be, and the level of PCI compliance in Europe is especially poor.” EX2020. Consequently, in February 2008, a POSITA would be strongly motivated away from solutions that introduce requirements for access management, application security and encryption.

VI. OVERVIEW OF THE '793 PATENT

40. The '793 Patent titled “WEB-BASED POINT OF SALE BUILDER,” has a priority date of February 5, 2008. Ex. 1001, 1. The field of art of the '793 Patent is retail point of sale POS systems, including building POS screens.

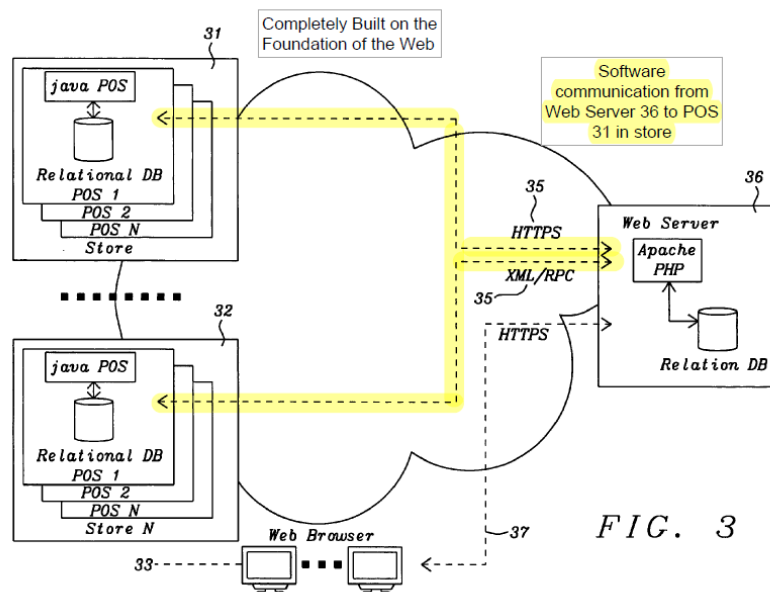
41. On February 5, 2008, the inventors filed U.S. Patent Application Serial No. 12/012,666 (“the '666 Application”). The '666 Application was published on August 6, 2009, as U.S. Patent Publication No. 2009/0199154 A1 and issued on July 26, 2016, as the '640 Patent, which is the grandparent patent to the '793 Patent.

42. On November 30, 2017, CloudfChange filed U.S. Patent Application No. 15/827,948 (“the '948 Application”). The '948 Application published on March 29, 2018, as U.S. Patent Publication No. 2018/0088909 and issued on January 18, 2022, as the '793 Patent, which is the subject of this proceeding.

43. The '948 Application is a continuation of U.S. Patent Application No. 15/198,117 filed on June 30, 2016, and issued as U.S. Patent No. 9,715,371 on July 25, 2017, which is itself a continuation of U.S. Patent Application No. 12/012,666 filed February 5, 2008, and issued as the '640 Patent.

44. The '640 Patent and its children, including the '793 Patent, involve technology for systems, services, and products for POS systems to manage business operations. *Id.* at 1:12-13. The technology includes “an online, web-based point of sale builder method, which can assist non-expert business operators in assembling a

point of sale system to manage their businesses” and whose operation “can range from a single branch to a large chain of stores or branches.” *Id.* at Abstract. The ’793 Patent states, and illustrates in FIG. 3, that “[t]he key advantages of the Web-based POS builder are that it is completely built on the foundation of the Web.” *Id.* at 5:39-40. The POS builder builds, edits, and tests new POS terminals in real time.” Ex. 1001, 5:43-47.



Ex. 1001, FIG. 3 (annotated). Some embodiments disclosed in the ’793 Patent relate to a customizable system having a POS terminal that can be edited and built from a server-accessible POS builder interface, which may be, for example, a centralized interface used by a remote or local POS system controller. Ex. 1001, 5:57-66.

45. Below, I have reproduced the Challenged Claims of the ’793 Patent:

Challenged Claims Listing	
1	1[pre] A web-based point of sale (POS) builder system comprising:
	[a] at least one server configured to:
	[b] communicate with one or more POS terminals over a network comprising the Internet, wherein the one or more POS terminals are configured to display one or more POS screens;
	[c] receive, over the network from a POS builder interface, information used for creating or modifying the one or more POS screens including creating or modifying one or more display interfaces for display on the one or more POS screens, the one or more display interfaces being associated with one or more items;
	[d] receive, from at least one of the one or more POS terminals over the network, further information regarding one or more POS transactions corresponding to the one or more items;
	[e] configure the one or more POS terminals with the information over the network to create or modify based on the further information regarding one or more POS transactions the one or more POS screens displayed on the one or more POS terminals; and
	[f] wherein the further information regarding the one or more POS transactions, the information used for creating or modifying the one or more POS screens, or a combination thereof comprises one or more of employee clock information, customer add/update information, item add/update information, promotion information, loyalty point information, discount information, taxation information, item cost information, or inventory information;
	[g] wherein said further information regarding the one or more POS transactions relate to one or more transactions by corresponding customers respectively associated with at least one of said one or more POS terminals.
2	The web-based point of sale (POS) builder system of claim 1, wherein the POS builder interface is configured to run on a computing device.

Challenged Claims Listing	
3	The web-based point of sale (POS) builder system of claim 1, wherein the one or more POS terminals comprise a plurality of POS terminals in a plurality of locations.
4	The web-based point of sale (POS) builder system of claim 1, wherein the one or more items comprise at least one of: one or more items for sale, one or more promotions, or one or more loyalty points programs.
7	The web-based point of sale (POS) builder system of claim 1, wherein the information regarding one or more POS transactions comprises one or more of the employee clock information, the customer add/update information, the item add/update information, or the promotion information.
8	The web-based point of sale (POS) builder system of claim 1, wherein the information regarding one or more POS transactions are viewable via the POS builder interface.
9	The web-based point of sale (POS) builder system of claim 1, wherein the one or more display interfaces comprise one or more buttons or keys.
10	The web-based point of sale (POS) builder system of claim 1, wherein the received information comprises information indicative of at least one of a number, shape, or arrangement of the one or more display interfaces.
11	The web-based point of sale (POS) builder system of claim 1, wherein the POS builder interface is accessible via a web browser.
12	The web-based point of sale (POS) builder system of claim 1, wherein the one or more display interfaces are accessible on the POS builder interface.

Challenged Claims Listing	
13	[pre]The web-based point of sale (POS) builder system of claim 1, wherein the at least one server is further configured to:
	[a] receive, over the network from the POS builder interface, second information regarding a modification to at least one of the one or more POS screens; and
	[b] update the at least one of the one or more POS screens on the one or more POS terminals based on the second information.
14	The web-based point of sale (POS) builder system of claim 1, wherein the at least one server is further configured to store information regarding the one or more POS screens.
15	The web-based point of sale (POS) builder system of claim 1, wherein the at least one server is located remotely from the one or more POS terminals.
16	The web-based point of sale (POS) builder system of claim 1, wherein the at least one server is further configured to receive the information for creating or modifying the one or more POS screens and create or modify the one or more POS screens in real time while the one or more POS terminals are in use performing one or more POS transactions.
17	The web-based point of sale (POS) builder system of claim 1, wherein the one or more POS terminals use the one or more POS screens after completing a pending POS transaction.
18	The web-based point of sale (POS) builder system of claim 1, wherein the at least one server is further configured to maintain information regarding POS screens for separate sets of POS terminals separately.
19	The web-based point of sale (POS) builder system of claim 1, wherein instructions to the POS builder interface for programmatic creation and modification of the POS terminals are not formatted in programming code.
20	The web-based point of sale (POS) builder system of claim 1, wherein the at least one server is further configured to maintain information regarding the one or more POS screens.

Challenged Claims Listing	
21	The web-based point of sale (POS) builder system of claim 1, wherein the received information comprises one or more attributes of the one or more items.
22	The web-based point of sale (POS) builder system of claim 1, wherein the POS terminals are configured to perform transactions independently of a connection with the network.
23	The web-based point of sale (POS) builder system of claim 1, wherein the input interface element comprises a data interface for inputting at least some of said further information.
24	The web-based point of sale (POS) builder system of claim 1, wherein to configure the one or more POS terminals comprises dynamically configuring the one or more POS terminals specific for the corresponding customer based on the one or more transactions by the corresponding customer.
25	The web-based point of sale (POS) builder system of claim 1, wherein the POS builder interface is configured to create or modify at least one of: a position or operation of a first display interface of the one or more display interfaces, wherein the first display interface comprises an input interface element.

Challenged Claims Listing	
26	The web-based point of sale (POS) builder system of claim 25, wherein the input interface element comprises a touch screen input interface element.
27	[pre] A web-based point of sale (POS) builder system comprising:
	[a] at least one POS terminal configured to:
	[b] display one or more POS screens;
	[c] communicate with at least one server over a network comprising the Internet;
	[d] receive, over the network from the at least one server, information used for creating or modifying the one or more POS screens including creating or modifying one or more display interfaces for display on the one or more POS screens, the one or more display interfaces being associated with one or more items;
	[e] perform one or more transactions with respect to the one or more items; and
	[f] transmit, from at least one of the one or more POS terminals over the network, further information regarding one or more POS transactions corresponding to the one or more items; and
	[g] create or modify based on the received information or further information the one or more POS screens;
	[h] wherein the further information regarding the one or more POS transactions, the information used for creating or modifying the one or more POS screens, or a combination thereof comprises one or more of employee clock information, customer add/update information, item add/update information, promotion information, loyalty point information, discount information, taxation information, item cost information, or inventory information; and
	[i] wherein said one or more POS transactions relate to one or more transactions by corresponding customers respectively associated with at least one of said one or more POS terminals.

Challenged Claims Listing	
28	The web-based point of sale (POS) builder system of claim 27, wherein the at least one POS terminal comprises a plurality of POS terminals in a plurality of locations.
31	The web-based point of sale (POS) builder system of claim 27, wherein the one or more display interfaces comprise one or more buttons or keys.
32	The web-based point of sale (POS) builder system of claim 27, wherein the received information comprises information indicative of at least one of a number, shape, or arrangement of the one or more display interfaces.
33	The web-based point of sale (POS) builder system of claim 27, wherein the at least one server is located remotely from the at least one POS terminal.
34	The web-based point of sale (POS) builder system of claim 27, wherein the at least one POS terminal is further configured to perform the one or more transactions in real time while the one or more POS screens are created or modified.
35	The web-based point of sale (POS) builder system of claim 34, wherein the at least one POS terminal uses the created or modified one or more POS screens after completing a pending POS transaction.
36	The web-based point of sale (POS) builder system of claim 27, wherein the received information comprises one or more attributes of the one or more items.
37	The web-based point of sale (POS) builder system of claim 27, wherein the one or more items comprise at least one of: one or more items for sale, one or more promotions, or one or more loyalty points programs.
38	The web-based point of sale (POS) builder system of claim 27, wherein the at least one POS terminal is further configured to perform the one or more transactions without a connection to the web server and transmit the information regarding the one or more transactions to the at least one web server after performing the one or more transactions and when the connection to the web server is established.

Challenged Claims Listing	
39	The web-based point of sale (POS) builder system of claim 38, wherein the at least one POS terminal is further configured to store locally the information regarding the one or more transactions.
40	The web-based point of sale (POS) builder system of claim 27, wherein a position or operation of a first display interface of the one or more display interfaces is created or modified, wherein the first display interface comprises an input interface element.
41	The web-based point of sale (POS) builder system of claim 40, wherein the input interface element comprises a touch screen input interface element.
42	[pre] A method of implementing a web-based point of sale (POS) builder system, the method comprising:
	[a] communicating with one or more POS terminals over a network comprising the Internet, wherein the one or more POS terminals are configured to display one or more POS screens;
	[b] receiving, over the network from a POS builder interface, information used for creating or modifying the one or more POS screens including creating or modifying one or more display interfaces for display on the one or more POS screens, the one or more display interfaces being associated with one or more items;
	[c] receiving, from at least one of the one or more POS terminals over the network, further information regarding one or more POS transactions corresponding to the one or more items; and
	[d] provisioning the one or more POS terminals with the information over the network to create, or modify based on the further information the one or more POS screens displayed on the one or more POS terminals;
	[e] wherein the further information regarding the one or more POS transactions, the information used for creating or modifying the one or more POS screens, or a combination thereof comprises one or more of employee clock information, customer add/update information, item add/update information, promotion information, loyalty point information, discount

Challenged Claims Listing	
	information, taxation information, item cost information, or inventory information; and
	[f] wherein said further information regarding the one or more POS transactions relate to one or more transactions by corresponding customers respectively associated with at least one of said one or more POS terminals.
43	[pre] A method of implementing a web-based point of sale (POS) builder system, the method comprising:
	[a] displaying one or more POS screens;
	[b] communicating with at least one server over a network comprising the Internet;
	[c] receiving, over the network from the at least one server, information used for creating or modifying the one or more POS screens including creating or modifying one or more display interfaces for display on the one or more POS screens, the one or more display interfaces being associated with one or more items;
	[d] performing one or more transactions with respect to the one or more items;
	[e] transmitting, to the at least one server, over the network, further information regarding one or more transactions corresponding to the one or more items; and
	[f] creating or modifying based on the received information the one or more POS screens;
	[g] wherein the further information regarding the one or more transactions, the information used for creating or modifying the one or more POS screens, or a combination thereof comprises one or more of employee clock information, customer add/update information, item add/update information, promotion information, loyalty point information, discount information, taxation information, item cost information, or inventory information; and

Challenged Claims Listing	
	[h] wherein said further information regarding the one or more POS transactions relate to one or more transactions by corresponding customers respectively associated with at least one of said one or more POS terminals.
	[pre] A web-based point of sale (POS) builder system comprising:
	[a] at least one server configured to:
	[b] communicate with one or more POS terminals over a network comprising the Internet, wherein the one or more POS terminals are configured to display one or more POS screens;
	[c] receive, over the network from a POS builder interface, information for creating or modifying functionality of the one or more POS terminals;
	[d] receive, from at least one of the one or more POS terminals over the network, further information regarding one or more POS transactions corresponding to the one or more items; and
44	[e] configure the one or more POS terminals with the information over the network to create, or modify based on the further information the functionality of the one or more POS terminals;
	[f] wherein the further information regarding the one or more POS transactions, the information used for creating or modifying the one or more POS screens, or a combination thereof comprises one or more of employee clock information, customer add/update information, item add/update information, promotion information, loyalty point information, discount information, taxation information, item cost information, or inventory information; and
	[g] wherein said further information regarding the one or more POS transactions relate to one or more transactions by corresponding customers respectively associated with at least one of said one or more POS terminals.

Ex. 1001, Claims 1-44.

46. **Prosecution History:** The application for the '793 patent was filed November 30, 2017. The Application is a continuation of U.S. Patent Application

No. 15/198,117 filed on June 30, 2016, and issued as U.S. Patent No. 9,715,371 on July 25, 2017, which is itself a continuation of U.S. Patent Application No. 12/012,666 filed February 5, 2008, and issued as the '640 Patent on July 26, 2016.

47. I understand that on July 11, 2019, the Examiner issued a Non-Final Office Action rejecting pending claims 2-44 “on the ground of nonstatutory double patenting as being unpatentable over claims 1-28 of [the '640 Patent].” Ex. 1003, 493-497. A Terminal Disclaimer was filed on October 11, 2019. Ex. 1033, 485. I understand that a Terminal Disclaimer was filed to expedite prosecution and CloudfChange made no, and continues to make no, admission that the present application’s claims are patentably indistinct from the claims of the '640 Patent.

48. I understand that on January 27, 2020, the Examiner issued a Notice of Noncompliant Amendment. Ex. 1003, 478. On March 27, 2020, CloudfChange filed a response attaching a copy of the pending claims without amendment. Ex. 1003, 465-474.

49. I further understand that on July 9, 2020, the Examiner issued a Non-Final Office Action rejecting pending claims 3-44 under pre-AIA 35 U.S.C. § 103(a) over Wagner (U.S. Patent No. 6,002,395), in view of Sullivan (U.S. Patent No. 7,015,945) and McCue (U.S. Patent Publication No. 2008/0109535). Ex. 1003, 404. I understand that CloudfChange filed a response amending pending claims 3,

8, 10-11, 16-19, 21, 23, 26, 32, 34-36, and 39-43. Ex. 1003, 381-390.

50. I understand that during prosecution, *Woycik* (U.S. Patent Publication No. 2007/0265935) and *Tengler* (U.S. Patent Publication No. 2005/0049921) were disclosed in an Information Disclosure Statement (“IDS”) on May 18, 2020. Ex. 1003, 415. I understand that the Examiner was made aware of the NCR Litigation and the specific invalidity contentions concerning the ’640 Patent and the ’012 Patent. Ex. 1003, 377-379. I understand that that NCR’s Invalidity Contentions along with claim chart Exhibits, the defendant in the NCR Litigation, were expressly cited and disclosed to the Examiner during prosecution in an IDS which cited both *Woycik* and *Tengler* as prior art references with Claim Charts. See Ex. 1003, 377-379.

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ¹
	12	Defendant's Invalidity Contentions in Case No: 6:19-CV-00513-ADA, CloudofChange, LLC, v. NCR Corporation, dated February 24, 2020 in 27 pages.	
	13	Exhibit A1: Invalidity of U.S. Patent No. 9,400,640 based on US2007265935 (“Woycik”) in 10 pages.	
	14	Exhibit A2: Invalidity of U.S. Patent No. 10,083,012 based on US2007265935 (“Woycik”) in 10 pages.	

Ex. 1003, 377.

	23	Exhibit A11: Invalidity of U.S. Patent No. 9,400,640 based on US20050049921 (“Tengler”) in 9 pages.	
	24	Exhibit A12: Invalidity of U.S. Patent No. 10,083,012 based on US20050049921 (“Tengler”) in 9 pages.	

Ex. 1003, 378.

51. I understand that on November 15, 2020, the Examiner signed the IDS and initialed the IDS indicating that “ALL REFERENCES CONSIDERED

EXCEPT WHERE LINED THROUGH. /R.M./.” Ex. 1003, 379. Neither *Woycik* nor *Tengler* were lined through. *Id.*

52. I understand that the Examiner’s search history shows that the Examiner expressly searched both *Woycik* and *Tengler* on January 2, 2021. Ex. 1003, 150-151.

S22	8	((("20060235755") or ("20070265935") or ("20070175995") or ("20050049921") or ("20070175992") or ("5920312") or ("20020194074") or ("6384850")).PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2021/01/02 15:34
S23	319	(inventory price cost sales) and ((web adj server) server same database) same(hardware software) same((cash adj register) POS (point adj of adj sale)) and (subscriptS4 subscrib\$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; DERWENT; IBM_TDB	OR	OFF	2021/01/02 17:34
S24	39	S23 @py<"2008"	US-PGPUB; USPAT; USOCR; FPRS; EPO; DERWENT; IBM_TDB	AND	OFF	2021/01/02 17:34
S25	319	(inventory price cost sales) and ((web adj server) server same database)	US-PGPUB; USPAT; USOCR;	OR	OFF	2021/01/02 17:35
		same(hardware software) same((cash adj register) POS (point adj of adj sale)) and (subscriptS4 subscrib\$4)	FPRS; EPO; DERWENT; IBM_TDB			

Id. (highlighted).

53. I understand that both *Woycik* and *Tengler* were made of record in the Office Action dated January 7, 2021. I understand that the Examiner issued a Non-Final Office Action rejecting (i) claims 3-6, 10-27, 30-36 and 39-43 under pre-AIA 35 U.S.C. § 102(a)(1) as being anticipated by Mueller (U.S. 2006/0235755); and (ii) claims 8-9 and 28-29 under pre-AIA § 103(a) as being obvious over Mueller in

view of *Tengler* (U.S. Patent Publication No. 2005/0049921). I understand that the Examiner stated,

Mueller discloses all of the limitations above but does not explicitly disclose the feature of wherein the at least one web server is further configured to receive from the one or more POS terminals one or more videos captured by one or more cameras, wherein the one or more videos are correlated with the one or more POS transactions and wherein the one or more videos and the one or more POS transactions are indexed using a same clock.

However, *Tengler* teaches the feature wherein the at least one web server is further configured to receive from the one or more POS terminals one or more videos captured by one or more cameras, wherein the one or more videos are correlated with the one or more POS transactions and wherein the one or more videos and the one or more POS transactions are indexed using a same clock (paragraphs [0018] and [0103]).

Ex. 1003, 142-143. I understand that in response, CloudofChange amended claims 3, 8, 10, 26, and 41-43, and added new claims 45-48. Ex. 1003, 111-121. I understand that on July 22, 2021, the Examiner issued a Final Office Action rejecting claims 3-6, 8-36, 39-43, and 45-48. Ex. 1003, 94. I understand that the Examiner repeated his rejection under §§ 102 and 103. Ex. 1003, 93-103. In response, CloudofChange amended claims 3, 26, and 41-43. Ex. 1003, 72-83.

54. I understand that on December 1, 2021, the Examiner issued a Notice of Allowance and included a Notice of References Cited, which listed both *Tengler* and *Woycik*. Ex. 1003, 19 and 29.

<i>Notice of References Cited</i>				Application/Control No. 15/827,948		Applicant(s)/Patent Under Reexamination BARATTA et al.	
				Examiner ROKIB MASUD		Art Unit 3687	Page 1 of 1
U.S. PATENT DOCUMENTS							
*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	CPC Classification	US Classification	
*	A	US-20060235755-A1	10-2006	Mueller; Raymond J.	G06Q30/06	705/15	
*	B	US-20050049921-A1	03-2005	Tengler, Craig D.	G06Q10/087	705/15	
*	C	US-20070265935-A1	11-2007	Woycik, Thomas E.	G07G1/14	705/65	
*	D	US-6384850-B1	05-2002	McNally; Keith R.	G06F16/9577	715/810	
*	E	US-20020194074-A1	12-2002	Jacobs, Eric L.L.	G07G1/145	705/16	

Ex. 1003, 145.

55. I understand that in the Notice of Allowance the Examiner expressly indicated that reasons for allowance in the Notice of Allowance. The Examiner stated,

[t]he primary reason for the allowance of these claims is the inclusion of the limitation of claim 1 of configuring the one or more POS terminals with the information over the network to create or modify based on the further Information regarding one or more POS transactions the one or more POS screens displayed on the one or more POS terminals; and wherein the further information regarding the one or more POS transactions, the information used for creating or modifying the one or more POS screens, or a combination thereof comprises one or more of employee clock information, customer add/update information, item add/update

information, promotion information, loyalty point information, discount information, taxation information, item cost information, or inventory information; wherein said further information regarding the one or more POS transactions relate to one or more transactions by corresponding customers respectively associated with at least one of said one or more POS terminals, which is not found in the prior art of records. The other independent claims contain similar subject matter and the dependent claims are also allowable based on their dependency on the independent claims.

Ex. 1003, 26.

56. I understand that on January 18, 2022, the '793 Patent issued.

57. **Litigation History:** I understand that on June 17, 2022, CloudfChange filed a lawsuit against Petitioner for infringement of the '793 Patent, the related '640 Patent, and the related '012 Patent in the United States District Court for the Western District of Texas, Waco Division ("WDTX"). *See CloudfChange, LLC v. Clover Network, Inc.*, No. 6:22-cv-00634.

58. I understand that the related '640 Patent and '012 Patent were previously involved in a lawsuit *CloudfChange, LLC v. NCR Corporation*, 6-19-cv-00513 (W.D. TEx. Aug. 30, 2019) (the "NCR Litigation"). The NCR Litigation resulted in a jury verdict holding that: (i) Claims 1, 3-6, and 11-13 of the '640 Patent are not invalid and were infringed; and (ii) Claims 1, 2, 3, 4, and 9 of the '012 Patent

are not invalid and that Claims 1, 2, 3, and 4 were infringed. Ex. 2012 (Dkt. 159, Jury Verdict). The Jury in the NCR Litigation expressly rejected invalidity arguments based on *Woycik*. Ex. 2012; Ex. 2009, 56-57, and 100-102; Ex. 2010, 243-300; and Ex. 2011, 126-132, 137-139, 144-147, 152-153, 225-227, 245-246, and 254

59. I understand that CloudfChange has also filed a lawsuit against Petitioner, Clover Network, Inc., on June 17, 2022, asserting the '793 Patent. *See CloudfChange, LLC v. Clover Network, Inc.*, No. 6:22-cv-00634 (W.D. TEx. Jun. 17, 2022) (the “Clover Litigation”).

VII. CLAIM CONSTRUCTION

60. I understand that claim terms are afforded their ordinary and customary meaning which is the meaning that the term would have to a POSITA in question at the time of the invention.

61. I understand that in the Lightspeed Litigation, Judge Albright construed the following terms:

Claims	Claim Term	Court's Construction in the Lightspeed Litigation Ex. 2019
All Claims	“a point-of-sale terminal” or “POS terminal”	Plain and ordinary meaning Cl. 1, 3, 42, 44

Claims	Claim Term	Court's Construction in the Lightspeed Litigation Ex. 2019
All Claims	"POS screens"	"a POS terminal's visual display depicting selection keys or buttons" Cl. 1, 42, 44
	"wherein the further information regarding the one or more POS transactions, the information used for creating or modifying the one or more POS screens, or a combination thereof comprises one or more of" and "further information regarding one or more POS transactions corresponding to the one or more items"	Plain and ordinary meaning Cl. 44
	"The web-based point of sale (POS) builder system of claim 1, wherein the received information comprises information indicative of at least one of a number, shape, or arrangement of the one or more display interfaces"	Plain and ordinary meaning Cl. 10
	"The web-based point of sale (POS) builder system of claim 1, wherein the POS builder interface is configured to run on a computing device"	Plain and ordinary meaning Cl. 2

62. **"web-based point of sale (POS) builder system"** I understand that in the NCR litigation, Judge Albright construed the term "web-based point of sale (POS) builder system" to mean "a point of sale (POS) builder system that requires the internet." Ex. 1024; Ex. 1025. In my opinion, the '793 Patent uses the same term in all of the Challenged Claims. Ex. 1001, Claims 1, 27, 42-44.

63. For the purposes of this declaration I have used Judge Albright's final constructions in the Lightspeed Litigation and NCR Litigation. Ex. 2019; Ex. 1024;

Ex. 1025.

64. I understand that the preamble of Claims 1, 27, and 44 recites “a web-based point of sale (POS) builder system.” Ex. 1001, Claims 1, 27, 44. I understand that the preamble of Claims 42 and 43 recites “[a] method of implementing a web-based point of sale (POS) builder system, the method comprising.” *Id.*, Claims 42, 43.

65. I understand that in general a preamble limits the invention if it recites essential structure or steps, or if it is necessary to give life, meaning, and vitality to the claim.

66. In my opinion, the preambles of Claims 1, 27, 42, 43, and 44 are limiting. In my opinion, “a web-based point of sale (POS) builder system” is properly construed as “a point of sale (POS) builder system that requires the internet,” consistent with Judge Albright’s final construction in the NCR Litigation. The preamble of Claims 1, 27, 42, 43, and 44 “a web-based point of sale (POS) builder system.” In my opinion, the WDTX correctly construed the preamble as “a point of sale (POS) builder system that requires the internet.” Ex. 1024, 1.

67. In my opinion, the “web-based” nature of the POS builder system is indicated as important by the specification. *See supra* Section VI. For example, the ’793 Patent states: “this invention relates to an online, web-based point of sale builder method....” Ex. 1001, 1:26-27. “The key advantages of the Web-based POS

builder are that it is completely built on the foundation of the Web.” *Id.* at 5:43-44.

68. In my opinion, the preambles of Claims 1, 27, 42, 43, and 44 are limiting, and “a web-based point of sale (POS) builder system” is properly construed as “a point of sale (POS) builder system that requires the internet.”

69. I understand that Petitioner seeks to construe the term “display interfaces) (all claims). In my opinion, Petitioner seeks to add the limitation “buttons or keys for display on POS screens” to independent Claim 1. In two (2) sentences, Petitioner opines that “display interfaces at least include buttons or keys for display on POS screens.” Petition, 10 (citing Ex. 1001, Claim 9). Petitioner has not overcome the presumption that “display interfaces” does not include the limitation “buttons or keys ...” that appear in dependent Claim 9. Therefore, the term should have its plain and ordinary meaning. As detailed in the specification, the term “display interfaces” is not limited to “buttons or keys” because embodiments also include boxes and other templates. EX1001, 2:53-3:3, 4:63-5:7, 5:22-35, FIGs 1-2, 4a-4b.

70. I further understand that Petitioner has proposed construction of five (5) claim terms in this proceeding. Specifically, I understand that Petitioner proposes to construe the following: (i) “wherein the further information regarding the one or more POS transactions, the information used for creating or modifying the one or more POS screens, or a combination thereof comprises one or more of

...” (all claims); (ii) “the input interface element” (Claim 23); (iii) “the web server” / “the at least one web server” (Claim 38); and (iv) “creating or modifying functionality of the one or POS” (Claim 44). Petition, 9-11.

71. In my opinion, the terms do not need construction. For the purposes of the declaration, I have used the claim terms plain and ordinary meaning.

VIII. BRIEF OVERVIEW OF *WOYCIK* and *TENGLER*

A. *Woycik* (Ex. 1004)

72. *Woycik* is titled “Computer-based ordering system.” Ex. 1004, Title. *Woycik* discloses “A computer-based ordering system for ordering goods and services includes a plurality of self-service client terminals and a server.” *Id.* at Abstract.

73. A “self-service ordering system 10 constructed in accordance with the invention” includes store locations “each having a plurality of kiosks arranged in a client-server configuration.” Ex. 1004, [0071]. In addition to standalone kiosks, each store includes a local server that is on-site, and may be a standalone server or a joint server/kiosk. *Id.* (“In general, a single store location will include at least one local server 16 and at least one client kiosk 30.”). In other words, *Woycik* teaches an on-premises server requirements and does not contain a system hosted over the Internet. Such kiosks may be used by customers to order food that is available at the store location using a self-order application. *Id.* at [0072]. *Woycik* expressly

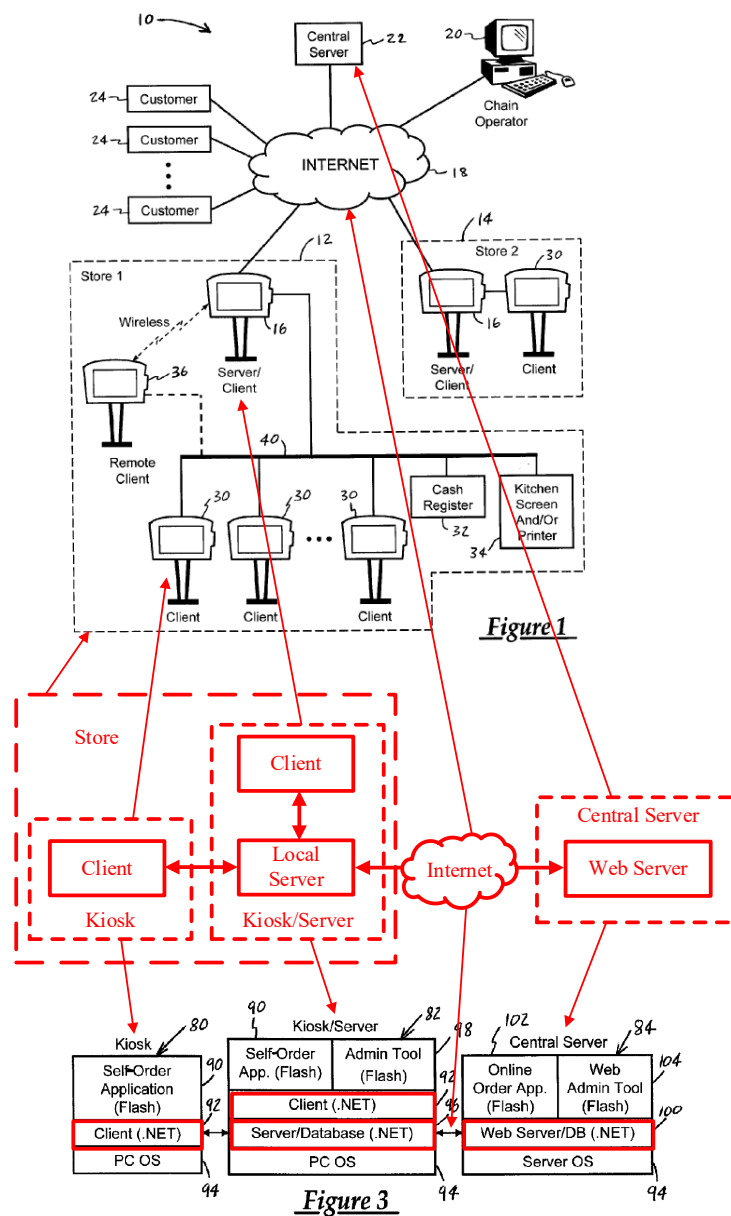
identifies the local server as an “advantage”: “The local server kiosk ... An advantage of this approach is that it enables administrators and store owners to make changes to the store offerings and customer interface without requiring any knowledge of the underlying code.” *Id.* at [0095]. The kiosks and local servers can **communicate via a local area network**. *Id.* at [0074]. In contrast, the POS is disclosed as connected to the Internet, but only for credit card payments. *Id.*

74. Referring to FIG. 1, *Woycik* states: “In each store, the local (on-site) server 16 is connected to the Internet 18 which allows remote access by the restaurant chain operator 20 and enables the local server 16 to access a central server 22 for software and media updates.” Ex. 1004, [0071]. *Woycik* continues: “In general, a single store location will include at least one local server 16 and at least one client kiosk 30.” *Id.* In fact, each embodiment in *Woycik* has a local server in the store and that local server is an endpoint to the networks it is connected to.

The local server kiosk (16, FIG. 1; 82, FIG. 3) includes an administrative tool (98, FIG. 3) to run reports, check the system status, add or remove kiosks from the system, or edit the screen displays that the customers see. All of these settings are stored on the local server 16, 82.

See id. at [0095].

75. An annotated version of Figures 1 and 3 of *Woycik* follows:



76. In addition to the self-order application, *Woycik* discloses an administrative tool that can be installed to run locally on a server kiosk that is in the store, or remotely to access the local version of the administrative tool installed in-store on the local server kiosk. Ex. 1004, [0073], [0095]. The administrative tool

can “perform various administrative functions such as configuring kiosks, creating and editing menus and available food items, and specifying tax and payment features of the system.” *Id.* at [0073]. The administrative tool “provides an administrative user interface to the client program” and can be run from a local client “by loading the administrative tool on each client computer 30.” *Id.*

77. In addition to running on the server kiosks, the administrative tool may be loaded on remote computers to administer and update the in-store local servers (server of the server kiosk 16, 82). *Id.* at [0075] (“Remote access also allows the chain operator 20 to remotely run the administrative tool”), [0115]. *Woycik* notes that this remote access of the in-store local servers “can be done several ways,” including via loading the tool on a remote computer to “update the local server 16,” loading the tool on a central server that “accesses and stores updated configuration information on the local server 16,” or using a “web interface to the administrative tool on the local server 16.” *Id.* In each different version of the administrative tool, the tool is used to update the configuration information at the in-store local server 16 (server of the server kiosk 16, 82). *Id.*

B. *Tengler* (Ex. 1005)

78. *Tengler* is titled “Order Processing.” Ex. 1005, Title. *Tengler* discloses a method of order processing for goods or services. Ex. 1005, [0001], [0007], and [0048]. *Tengler* relates to “an apparatus that includes stations in a quick-serve

commercial establishment . . . enabling users to enter orders, check the status of orders, and assemble orders for delivery” and “a network interconnecting the stations.” Ex. 1005 [0011]. “[T]he invention features a method that includes enabling a manager to access a management database of a quick-serve restaurant location remotely through a web interface.” *Id.* [0022]. “[M]anagers can view information about the multiple restaurants 2 using interfaces 192 and 196 over the Internet” and “can also modify menus and change prices using interfaces 192 and 196.” *Id.* [0073]. “A user interface designer 614 allows management to edit the user interface of the register and self-service applications and also saves the specifications in the database 602.” *Id.* [0103]. “A store resident web server 620 enables external managers to view restaurant status information in the database 602 using the interface 190.” *Id.* “The store resident web server 620 also allows managers to edit the user interface of the register and self-service applications and also saves the specifications in the database 602.” *Id.*

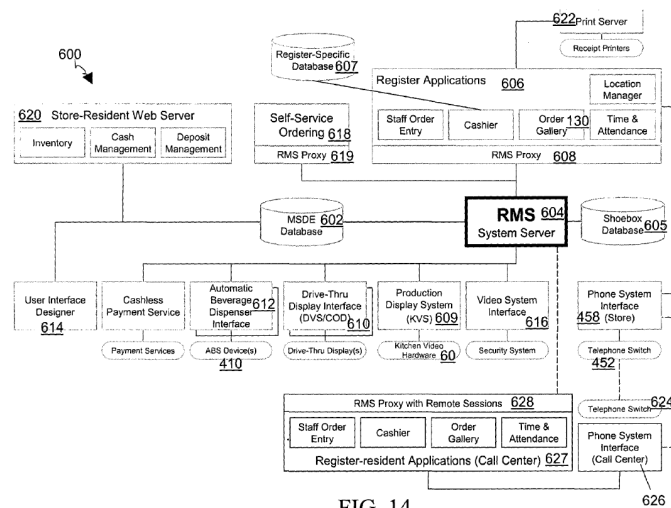


FIG. 14

Ex. 1005, FIG. 14

79. Interfaces 192 and 196 are directly linked to database 602 without the intervention of any intermediary database or process. Ex. 1005, [0073]. The requirement for interfaces 192 and 196 to be directly linked to database 602 without intermediary process excludes interfaces 192 and 196 from being an interface to user interface designer 614.

80. Interfaces 192 and 196 are interfaces of web server 620. Ex. 1005 [0109]. *Tengler* is titled “Order Processing.” Ex. 1005, Title. *Tengler* discloses a method of order processing for goods or services. Ex. 1005, [0001], [0007], and [0048]. Specifically,

a method that includes maintaining an electronic association between each order received at a place at which goods or services are offered, the goods or services to be delivered at a point in the place, and enabling

the association of the order with the delivery place to be altered between the time when the order is placed and the time when the order is delivered that it's "invention relates to the managing of the points of sale (POS) with Web-based back-office systems."

Ex. 1005, [0007]. Figures 14 and 15 discloses the complex software architecture of *Tengler's* restaurant management software, which includes a local server (RMS system server 604), web server (store-resident web server 620), one or more registers and/or kiosks, and a Microsoft Data Engine (MSDE) database¹ for the local server. For example, *Tengler* requires a complete server installation for each store. See Ex. 1005, Figs. 1-2 and 11-15 (illustrating single store installations with a server).

81. In *Tengler*, the "commercial context in which orders for goods or services are processed" includes a "quick-serve restaurant," that "uses restaurant management software and a database to manage the placing of orders, the entry of orders, the preparation of the food..., and the assembly and delivery of the orders." Ex. 1005, [0049]. Figures 14 and 15 disclose the complex software architecture of *Tengler's* restaurant management software, which includes a local server (RMS system server 604), web server (store-resident web server 620), one or more registers and/or kiosks, and a Microsoft Data Engine (MSDE) database for the local server. For example, *Tengler* requires a complete server installation for each store. See Ex. 1005, Figs. 1-2 and 11-15 (illustrating single store installations with a server).

¹ MSDE databases are proprietary databases that require programmers to implement.

Consistent with the State of the Art when the '793 Patent was filed (as discussed above, *Tengler* requires an in-store local server. To address the complications associated with each store requiring its own server, *Tengler* teaches a “Multi-Unit-Management-Interface (MUMI) software application.” Ex. 1005, [0108]. The MUMI software helps address the problems associated with each restaurant having its own in-store server and Internet Service Providers. For example, the MUMI software of *Tengler* helps address problems associated with (i) Internet Service Providers internet connectivity requirements for each restaurant; and (ii) the allocation and reallocation of each restaurant’s IP address. *See* Ex. 1005, [0109]-[0111).

82. In my opinion, *Tengler* discloses an in-store local server that includes store-resident web server software to enable offsite connection to the in-store server. For example, referring to FIG. 14, *Tengler* states: “the restaurant management software 600 includes a portion that runs on a central server in the restaurant and is called the restaurant management system (RMS) server 604.” Ex. 1005, [0088]. As shown in FIG. 14 and FIG. 15, the “software architecture” of *Tengler*’s restaurant management software includes a local server (RMS system server 604), web server (store-resident web server 620), and one or more registers and/or kiosks. Ex. 1005, [0044], [0088].

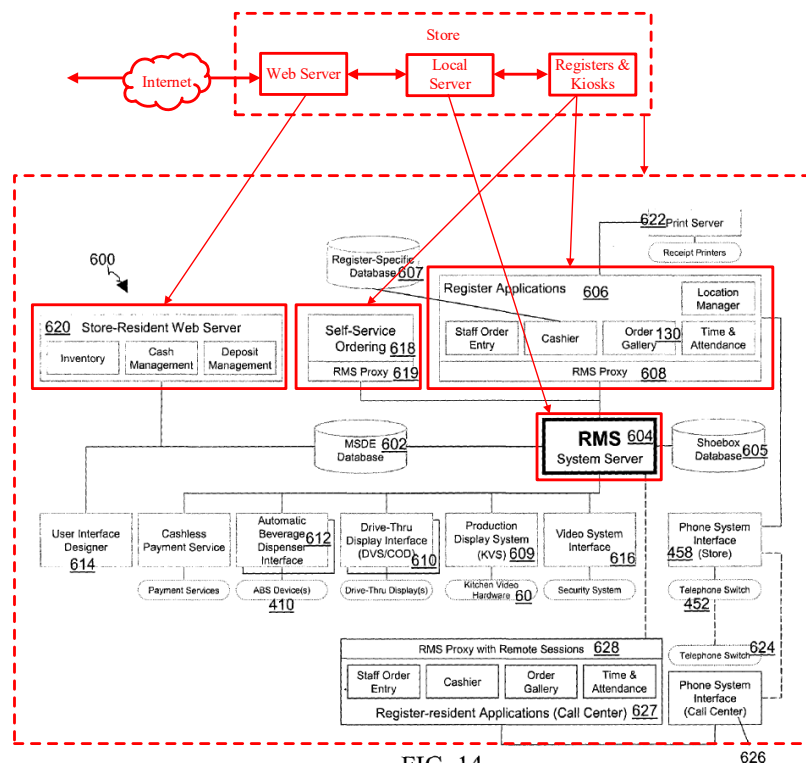


FIG. 14

Ex. 1005, FIG. 14 (annotated).

83. *Tengler* further teaches that the “restaurant management system 604” and “store-resident web server 620” are hosted by an in-store “main server computer 464” that is physically located in the “office 24” of each location (i.e., “restaurant 2”). Ex. 1005 ¶¶[0056], [0088], [0116]. The “registers, stations, terminals, and other devices [are] connected to a local area network.” Ex. 1005, ¶[0088] (emphasis added); *see also* FIG. 15.

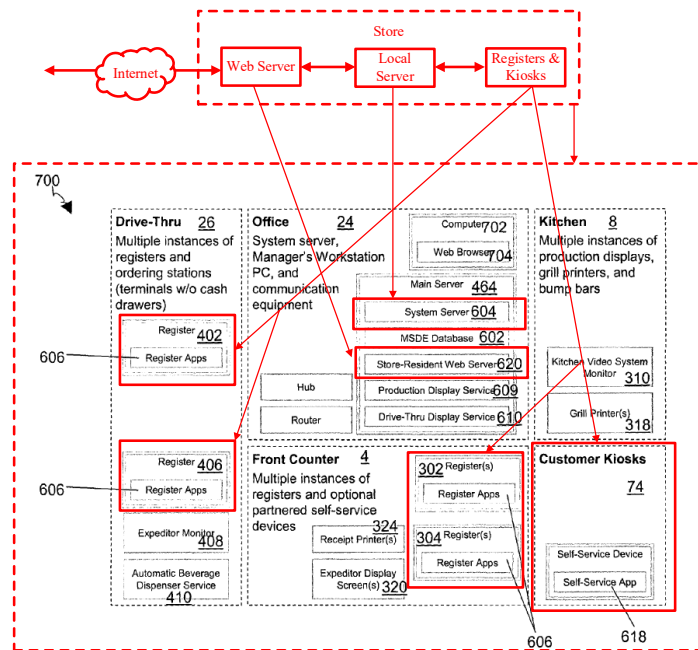


FIG. 15

Ex. 1005, FIG. 15 (annotated).

84. In my opinion, *Tengler* discloses that the store has a main server that includes both an **in-store server for the local, in-store devices**, as well as a web server to provide access allowing management to view status within the store. Ex. 1005, [0116] (“main server computer 464 runs the system server software 604, the database 602, the store-resident web server software 620”). For example, “[t]he server **604** stores restaurant status and order status information for local viewing at registers, stations, terminals, and other devices connected to a local area network.” Ex. 1005, [0088] (emphasis added).

85. In my opinion, the in-store, local server (RMS system server 604) is consistently described by *Tengler* as central to communications with and between

in-store devices, and necessary to support in-store functions and status-keeping. Ex. 1005, [0088] (“server **604** stores restaurant status”), [0095] (“RMS server **604** keeps restaurant system status, receives order updates from the stations..., broadcasts order status changes to the stations..., updates the database **602** and the shoebox database as required, supports shared cashless payment methods..., and synchronizes [between databases]”).

86. The “store-resident web server **620** enables external managers to view restaurant status information.” Ex. 1005, [0103]. Managers may also “edit the user interface of the register and self-service applications and also save the specifications in the database **602**.” *Id.* The web server provides access “from off-site (such as the manager’s home or a central corporation office).” *Id.*

IX. REVIEW OF PETITIONER’S INVALIDITY GROUNDS

87. None of the prior art references teach “a “POS transaction” occurring at the “one or more POS terminals” by “corresponding customers;” or a system that can “modify [the POS terminal or POS screens thereon] based on the POS transaction information” received at the centralized server from a POS terminal. Ex. 1001, Claim 1; Claim 27; Claim 42; Claim 43; and Claim 44.

88. I understand that Petitioner has the burden of demonstrating unpatentability by the preponderance of the evidence, and it must identify and explain how the asserted prior art satisfies each element of the claims and how the

claims are to be construed. In my opinion, Petitioner has failed to carry its evidentiary burden with respect to any of the Challenged Claims.

A. Ground 1

89. In my opinion, Ground 1 fails because Petitioner fails to demonstrate that *Woycik* discloses a “web-based point of sale (POS) builder system,” “communicate with one or more POS terminals over a network comprising the Internet,” “receive over the network from a POS builder interface, information used for creating or modifying the one or more POS screens,” “receive, from at least one of the one or more POS terminals over the network, further information regarding one or more POS transactions corresponding to the one or more item,” and “a configure the one or more POS terminals with the information over the network to create or modify based on the further information regarding one or more POS transactions the one or more POS screens displayed on the one or more POS terminals.” Ex. 1001, Claims 1, 27, 42, 43, and 44. Also, Petitioner fails to demonstrate that *Woycik* discloses features recited in Claims 2-26. Further, Petitioner fails to show that the purported knowledge of a POSITA cures these deficiencies.

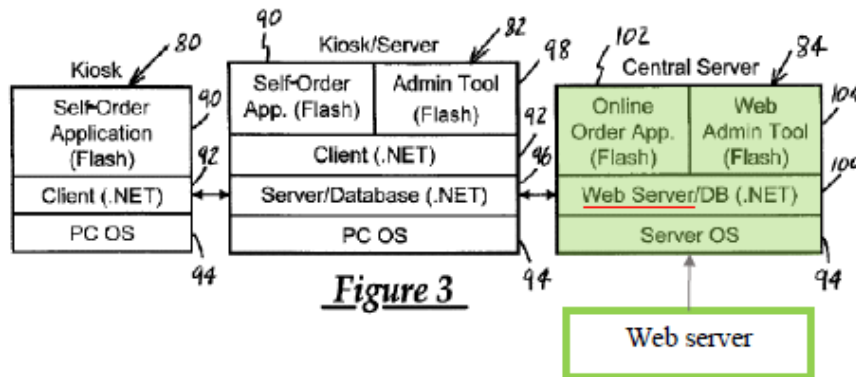
90. In my opinion, Petitioner misconstrues *Woycik* to avoid the novel and nonobvious features of the claimed invention. For example, the claimed technology includes “an online, web-based point of sale builder method, which can assist non-

expert business operators in assembling a point of sale system to manage their businesses” and whose operation “can range from a single branch to a large chain of stores or branches.” Ex. 1001, Abstract. As identified in the ’793 Patent specification, “[t]he key advantages of the Web-based POS builder are that it is completely built on the foundation of the Web.” *Id.*

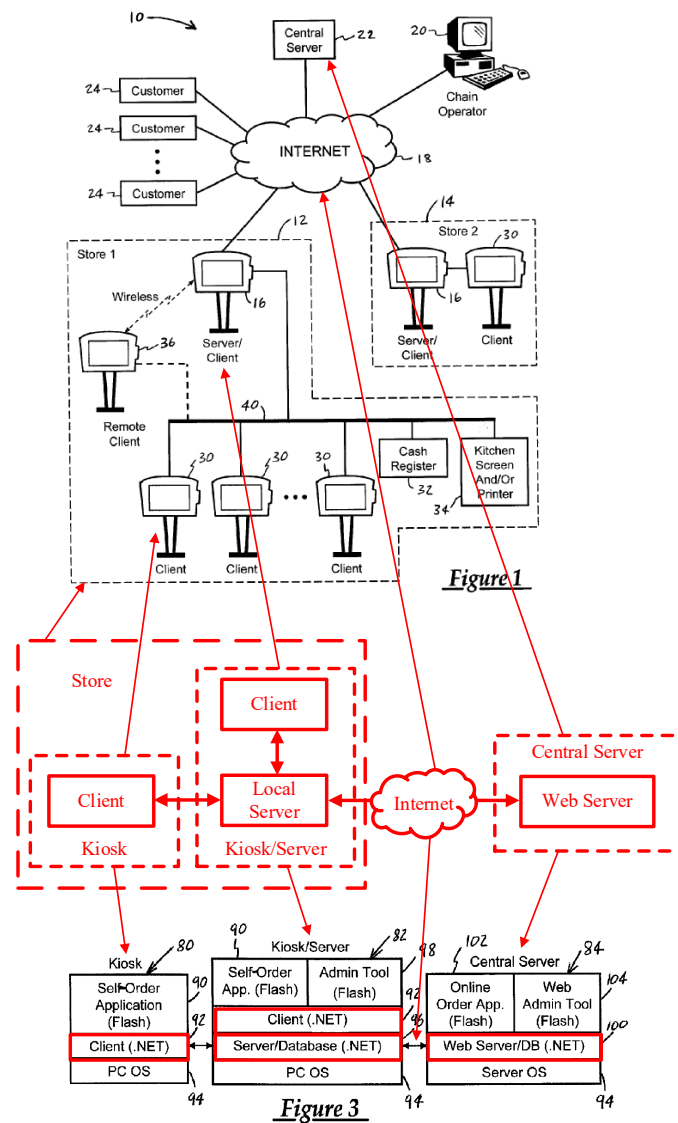
91. In contrast, for the system described and taught in *Woycik*, each store is required to have **a local server that is on-site** for the described system. Ex. 1004, [0071] (“In general, a single store location will include at least one local server 16 and at least one client kiosk 30.”).

92. In my opinion, Petitioner’s (and Dr. Mowry’s) fundamental misunderstanding of the claimed technology is shown in the annotated FIG. 3 drawing from Dr. Mowry’s declaration. Unlike the claimed technology, which communicates directly from the webserver to the POS system located in the store, *Woycik*’s system and software communicates from the central server 22/84 to the in-store local server 16/82 to the kiosk 780. Ex. 1004, FIG. 3. As shown in FIG. 3, central server 84 does not communicate to kiosk 80 via the internet. Dr. Mowry’s fundamentally misunderstands the role, functionality, and “advantages” of the local server described and claimed in *Woycik*. *Id.* at [0095]. The functionality and advantage of the system described by *Woycik* is the local server 82 which communicates with central server 84. In fact, as shown in the annotations to FIG. 1

and FIG. 3 of *Woycik*, local kiosk 80 communicates with local server 82 via LAN 40, and never communicates directly with central server 84. *Id.*



Ex. 1004, FIG. 1 (annotated).



Ex. 1004, FIG. 3 (annotated).

1. Claim 1

93. In my opinion, *Woycik* does not disclose a “web-based point of sale

(POS) builder system,”² at least because *Woycik* requires an in-store local server (server of the server kiosk 16, 82), with the administration tool installed thereon, which communicates over LAN 40, not the Internet. Ex. 1001, Claim 1. Like the prior art before the ’793 Patent, *Woycik* teaches a server at each store. Ex. 1004, [0071], [0095]. In fact, each embodiment in *Woycik* has a local server in the store, including the “local server kiosk” that “includes an administrative tool.” *Id.* at [0095]. For example, referring to Figure 1, *Woycik* states: “[i]n each store, the local (on-site) server **16** is connected to the Internet **18** which allows remote access by the restaurant chain operator **20** and enables the local server **16** to access a central server **22** for software and media updates.” *Id.* at [0071]. *Woycik* continues: “a single store location will include at least one local server **16** and at least one client kiosk **30**.” *Id.* In some cases, a “server kiosk” may function as a “local server” for the other kiosks in the store. *Id.* at [0095]. *Woycik* explains, “one of the kiosks 16 is used both as a client ... and as the local server to interface to the Internet 18 and to respond to requests from the local client kiosks 30.” *Id.* at [0072]. Furthermore, *Woycik* explains that in the case of the computer of the server kiosk, the client portion of the server kiosk and the server portion of the server kiosk have independent roles. *See id.* at [0072] “This is accomplished by providing separate client and server

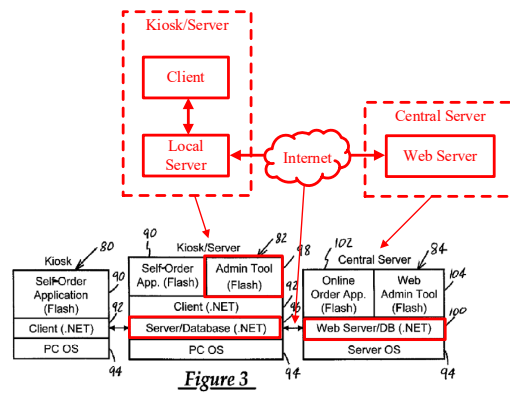
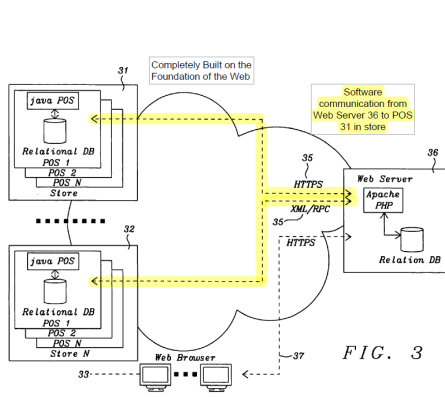
² Properly construed, a “web-based point of sale (POS) builder system” is “a point of sale (POS) builder system that requires the internet.”

software both on a single one of the kiosks 16.” *Id.*

94. In my opinion, *Woycik* does not disclose communicate one or more POS terminals over a network comprising the Internet and “receiv[ing] over the network from a POS builder interface, information used for creating or modifying the one or more POS screens” because the administrative tool and web server identified by Petitioner are co-located at the central server. Ex. 1004, FIG. 1, FIG. 3, FIG. 25, [0071]-[0072], [0095], [0122]); Ex. 1001, Claim 1. In my opinion, Petitioner improperly ignores the express teachings of *Woycik* that disclose that the administrative tool and web server, identified by Petitioner, are co-located at the central server. *Compare* Petition, 19-26 with Ex. 1004, FIG. 1, FIG. 3, FIG. 25 [0071]-[0072], [0095], [0122]).

95. For example, FIG. 1 discloses that the kiosk/server 82, not kiosk 80, is connected to the central server via the Internet. Ex. 1004, [0071]. Furthermore, the portions of *Woycik* that reference using the administrative tool via a network (the Internet), refer to the remote version of the administrative tool (from the central server), which accesses the local version of the administrative tool at the local server via the network. *Id.* at [0122]. The administrative tool accessing the local server is different than accessing the central server over a network comprising the internet, as depicted in the annotated FIG. 3 below. For example, the portions of *Woycik* where the administrative tool is separated from the web server via a network (the Internet),

and the administrative tool is the local version modifying kiosk configurations at the local server, not accessing the web server via a network comprising the internet. *Id.* at [0095]. “All of these settings are stored on the local server 16, 82. The administrative tool 98 allows an administrator to modify these settings via a local kiosk touch screen.” *Id.* Indeed, unlike in the ’793 Patent (Fig. 3), *Woycik* servers do not communicate with POS terminals “over a network comprising the Internet.” Instead, the local server of *Woycik* (FIG. 1 and FIG. 3), not the “POS builder interface” communicates over the internet with central server 22.



Ex. 1001 (’793 Patent), Fig. 3 (annotated) Ex. 1004, Fig. 1 and 3 (annotated)

96. Additionally, each of Figures 23, 24, and 25 of *Woycik* illustrate examples of *Woycik*’s reliance on an in-store, local server (server of the server kiosk 16, 82), even when a client receives communications from the central server; FIG. 3 illustrates the components referenced in FIG. 23, FIG. 24, and FIG. 25:

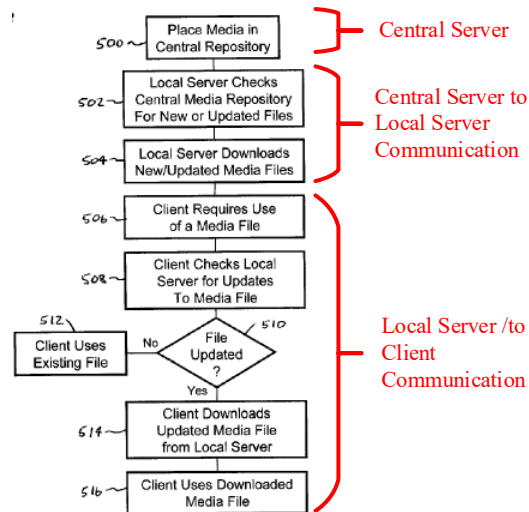


Figure 23

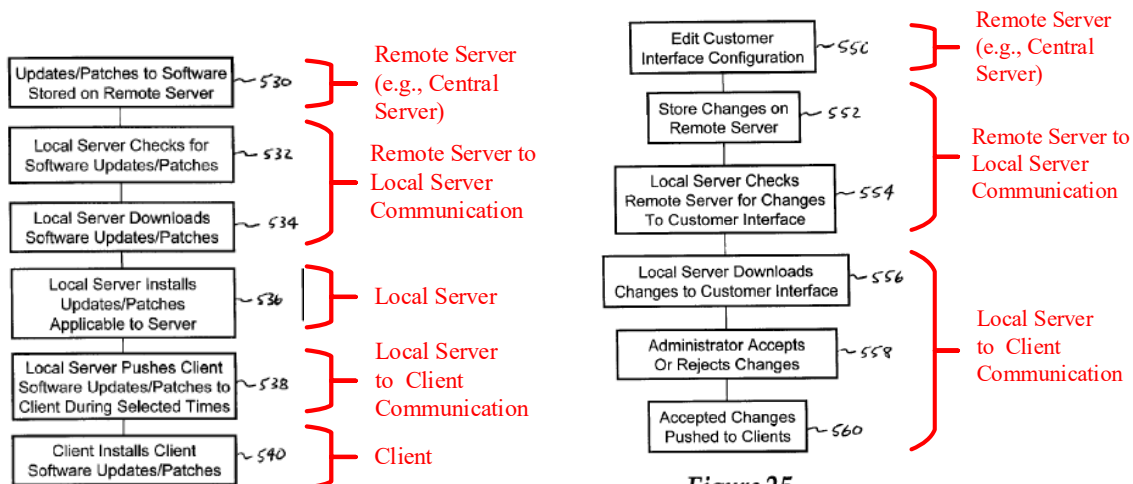


Figure 24

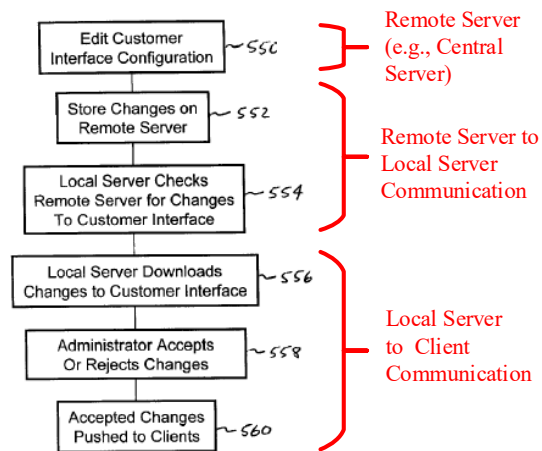


Figure 25

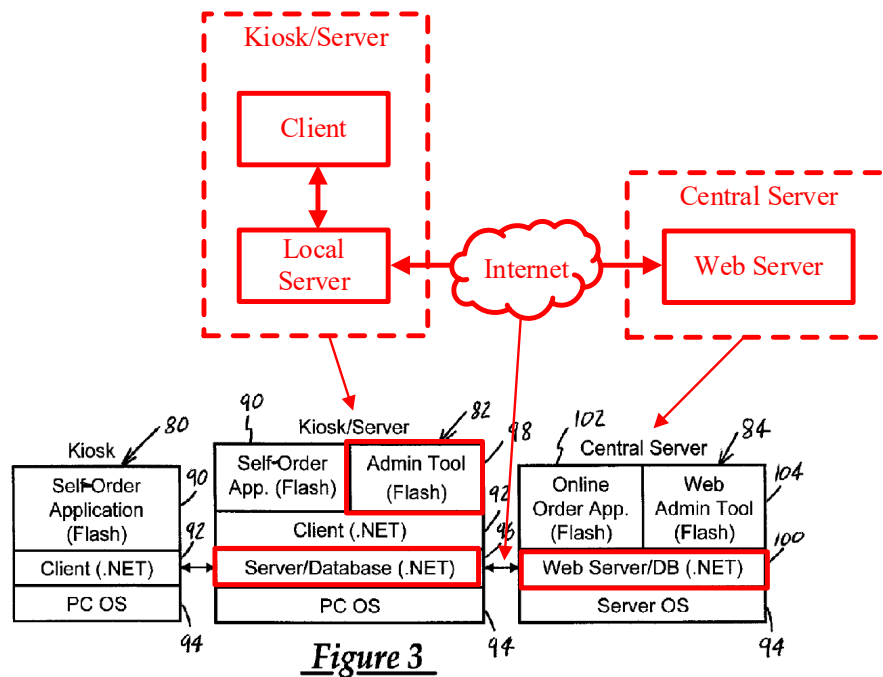
Ex. 1004, FIGs. 23-25 (annotated).

97. In my opinion, in each example, the local server of the server kiosk acts as the middleman for all communications: the “remote server such as the central server 22 of FIG. 1” communicates only with the local server, while the client likewise only communicates with the local server (and not the remote server, which

has the web server). Ex. 1004, [0117]).

98. Therefore, in my opinion, *Woycik* does not disclose “communicate one or more POS terminals over a network comprising the Internet and “receiv[ing] over the network from a POS builder interface, information used for creating or modifying the one or more POS screens,” as recited in Claim 1.

99. In my opinion, *Woycik* does not disclose “at least one server configured to: ... receive, from at least one of the one or more POS terminals over the network, further information regarding one or more POS transactions corresponding to the one or more item,” at least because *Woycik* expressly relies on an in-store, local server (local server of server kiosk 16, 82) to communicate with the central server. Ex. 1001, Claim 1. As explained above, Figures 23-25 demonstrate *Woycik*’s express reliance on an in-store, local server to act as the middleman for all communications to the central server over a network (the internet). Ex. 1004, [0117]. The reliance on an in-store local server to communicate to the central server over a network (the internet) is further depicted in annotated FIG. 3.



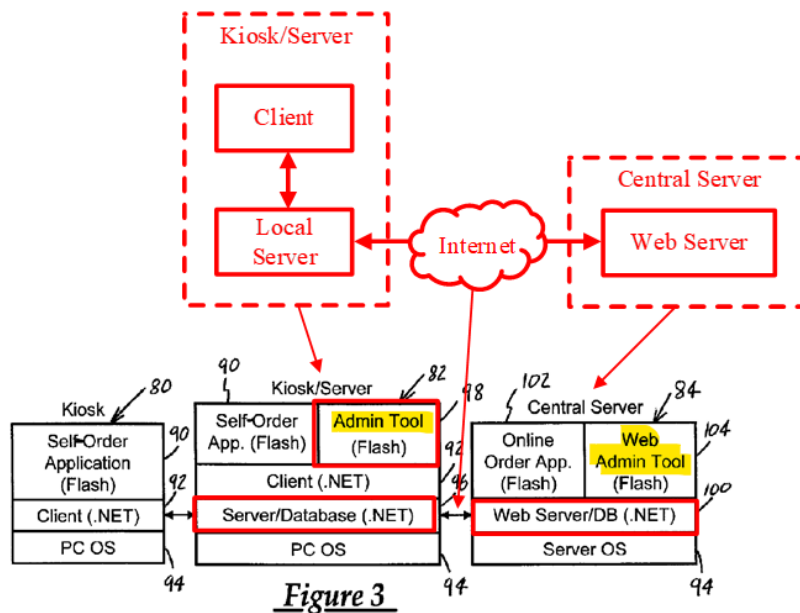
Ex. 1004, Fig. 3 (annotated).

100. In my opinion, *Woycik* does not disclose “a POS builder interface configured to be accessible via network communication with said web server over a communications network” at least because the administrative tool and web server identified by Petitioner are co-located at the central server. *Woycik* does not teach a POS builder interface accessible over a communications network with a web server. Therefore, in my opinion, *Woycik* does not disclose “communicate one or more POS terminals over a network comprising the Internet and “receiv[ing] over the network from a POS builder interface, information used for creating or modifying the one or more POS screens,” as recited in Claim 1.

101. In my opinion, *Woycik* does not teach “at least one server configured

to: ... configure the one or more POS terminals with the information over the network to create or modify based on the further information regarding one or more POS transactions the one or more POS screens displayed on the one or more POS terminals,” at least because the central server does not configure kiosk 80 over a network (*e.g.*, the Internet). Instead, as explained above, *Woycik* expressly relies on an in-store, local server (server of the server kiosk 16, 82) to communicate with the central server.

102. Additionally, in my opinion, the administrative tool identified is not the same as the “web-admin tool” expressly taught by *Woycik*. In my opinion, Petitioner improperly ignores the express teachings of *Woycik* which requires a local server.



Ex. 1004, FIG. 3 (annotated). As explained in *Woycik*, a key advantage of the systems is the local server. *Id.* at [0095]. The local “admin tool” 98, **not** the web

admin tool 104, of modifies (*e.g.*, configures) kiosk configurations at the local server. Ex. 1004, FIG. 3. The administrative tool accessing the local server is different than accessing the web server at the central server. Contrary to Petitioner’s assertion, the portions of *Woycik* that reference using the administrative tool via a network (the Internet), refer to the remote version of the administrative tool, which accesses the local version of the administrative tool at the local server via a network. Ex. 1004, [0122].

103. When viewed in its entirety, the portions of *Woycik* where the administrative tool is separated from the web server via a network (*e.g.*, the Internet), the administrative tool is the local version 98 that configures the kiosks at the local server over LAN 40, not a network comprising the internet, as recited in the claims. Ex. 1004, [0095]. “All of these settings are stored on the local server **16, 82**. The administrative tool **98** allows an administrator to modify these settings via a local kiosk touch screen.” *Id.*

104. Therefore, in my opinion, *Woycik* fails to disclose “receive, from at least one of the one or more POS terminals over the network, further information regarding one or more POS transactions corresponding to the one or more item,” as recited in Claim 1.

2. Claim 27

105. I understand that the preamble of Claim 27 recites similar features as

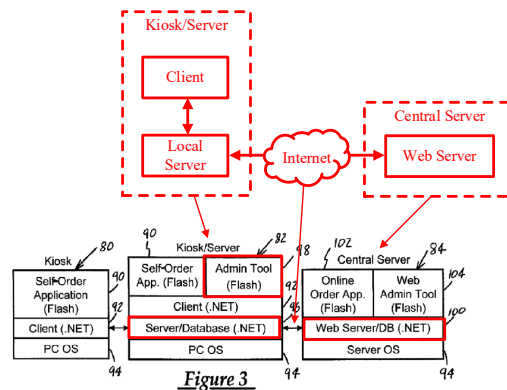
the preamble of Claim 1. For the same reasons, as provided above, *Woycik* does not disclose a “web-based point of sale (POS) builder system.”³

106. Specifically, in my opinion, *Woycik* does not disclose a “web-based point of sale (POS) builder system,” at least because *Woycik* requires an in-store server, with the administration tool installed thereon, which communicates over LAN 40, not the Internet. Ex. 1001, Claim 27. Like the prior art before the ’793 Patent, *Woycik* teaches a server at each store. Ex. 1004, [0071], [0095]. In fact, each embodiment in *Woycik* has a local server in the store, including the “local server kiosk” that “includes an administrative tool.” *Id.* at [0095]. For example, referring to Figure 1, *Woycik* states: “[i]n each store, the local (on-site) server **16** is connected to the Internet **18** which allows remote access by the restaurant chain operator **20** and enables the local server **16** to access a central server **22** for software and media updates.” *Id.* at [0071]. *Woycik* continues: “a single store location will include at least one local server **16** and at least one client kiosk **30**.” *Id.* In some cases, a “server kiosk” may function as a “local server” for the other kiosks in the store. *Id.* at [0095]. *Woycik* explains, “one of the kiosks 16 is used both as a client ... and as the local server to interface to the Internet 18 and to respond to requests from the local client kiosks 30.” *Id.* at [0072]. Furthermore, in my opinion, *Woycik* explains

³ Properly construed, a “web-based point of sale (POS) builder system” is “a point of sale (POS) builder system that requires the internet.” *See supra* Section VII.

that in the case of the computer of the server kiosk, the client portion of the server kiosk and the server portion of the server kiosk have independent roles. *See id.* at [0072] “This is accomplished by providing separate client and server software both on a single one of the kiosks 16.” *Id.*

107. In my opinion, *Woycik* does not disclose “at least one POS terminal configured to: ... communicate with at least one server over a network comprising the Internet,” at least because the local server of *Woycik* (FIGs. 1 and 3), **not** the “kiosk” 80 communicates over the internet with central server 22.



Ex. 1004, FIG. 1 and FIG. 3 (annotated)

108. Additionally, each of Figures 23, 24, and 25 of *Woycik* illustrate examples of *Woycik*’s reliance on an in-store, local server (server of the server kiosk 16, 82), even when a client receives communications from the central server; Figure 3 illustrates the components referenced in Figures 23, 24, and 25:

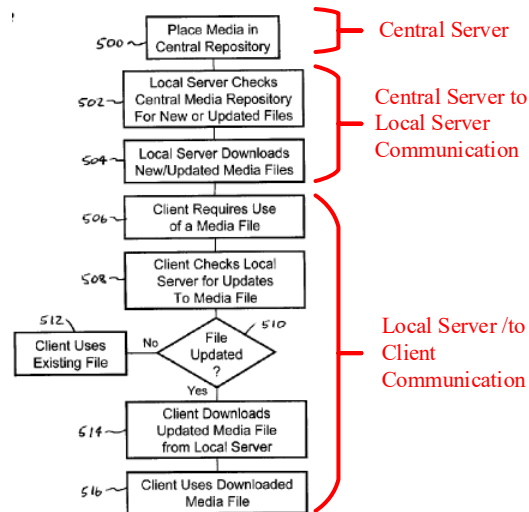


Figure 23

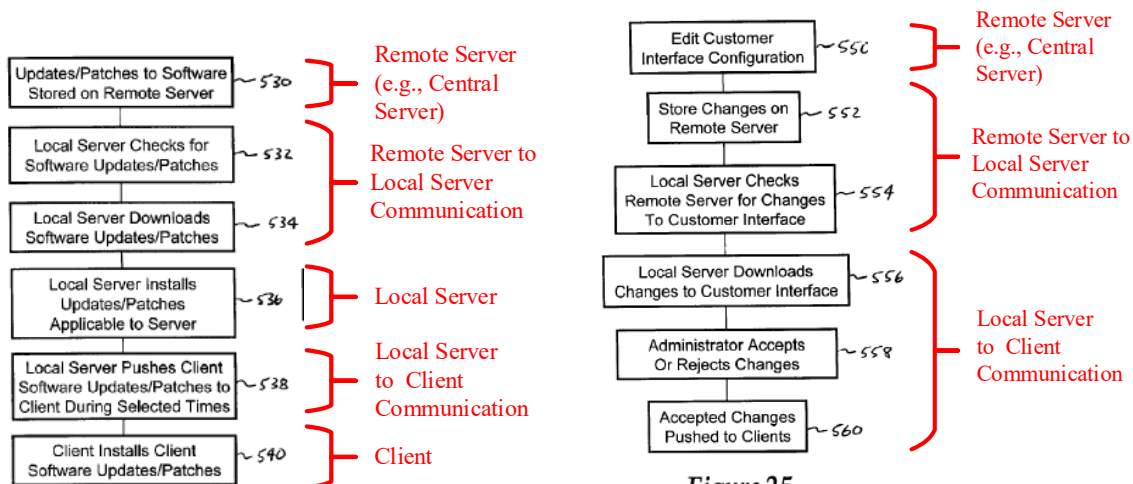


Figure 24

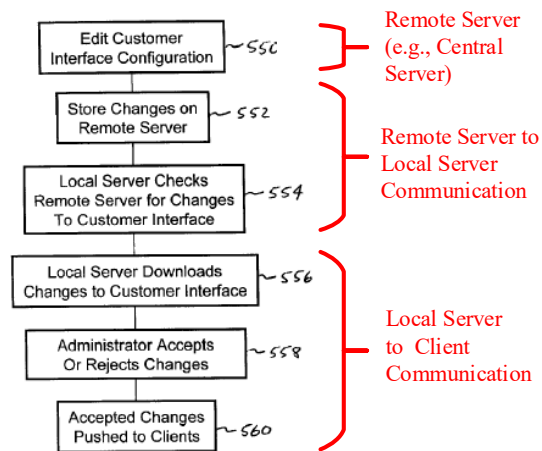


Figure 25

Ex. 1004, FIGs. 23-25 (annotated).

109. In my opinion, in each example, the local server of the server kiosk acts as the middleman for all communications: the “remote server such as the central server 22 of FIG. 1” communicates only with the local server, while the client likewise only communicates with the local server (and not the remote server, which

has the web server). Ex. 1004, [0117].

110. Therefore, in my opinion, *Woycik* does not disclose a POS terminal configured to “communicate with at least one server over a network comprising the Internet” and “receiv[ing] over the network from a POS builder interface, information used for creating or modifying the one or more POS screens,” as recited in Claim 27.

111. In my opinion, *Woycik* does not disclose “at least one POS terminal configured to: ... receive, over the network from the at least one server, information used for creating or modifying the one or more POS screens,” at least” because *Woycik* expressly relies on an in-store, local server (local server of server kiosk 16, 82) to communicate with the central server. Ex. 1001, Claim 27. As explained above, Figures 23-25 demonstrate *Woycik*’s express reliance on an in-store, local server to act as the middleman for all communications to the central server over a network (the internet). Ex. 1004, [0117]. The reliance on an in-store local server to communicate to the central server over a network (the internet) is further depicted in Figure 3.

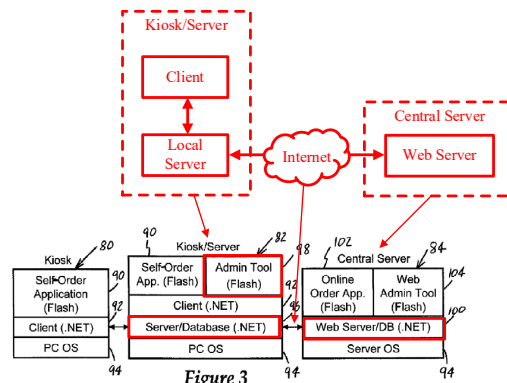


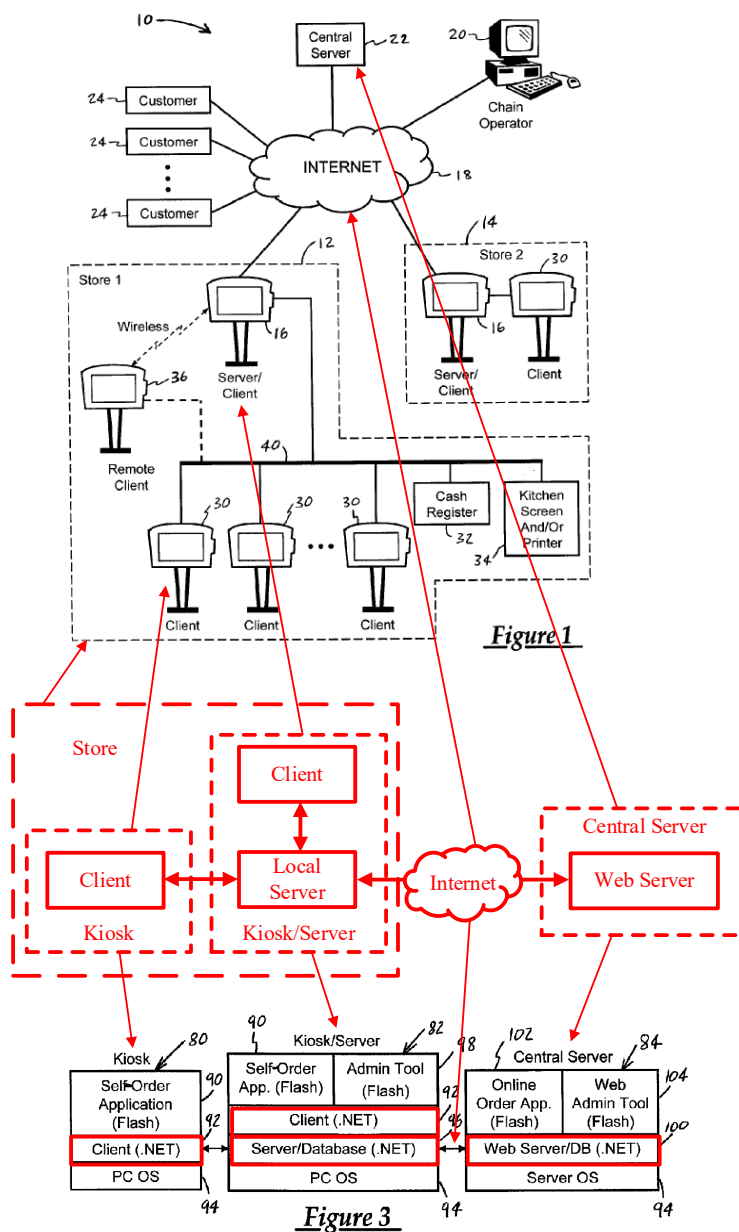
Figure 3

Ex. 1004, Fig. 3 (annotated). In my opinion, *Woycik* does not disclose “a POS builder interface configured to be accessible via network communication with said web server over a communications network” at least because the administrative tool and web server identified by Petitioner are co-located at the central server. In my opinion, *Woycik* does not teach a POS builder interface accessible over a communications network with a web server.

112. Therefore, in my opinion, *Woycik* does not disclose “at least one POS terminal configured to: ... receive, over the network from the at least one server, information used for creating or modifying the one or more POS screens,” as recited in Claim 27.

113. In my opinion, *Woycik* does not teach “at least one POS terminal configured to: ... transmit, from at least one of the one or more POS terminals over the network, further information,” at least because the kiosk 80 does not transmit information over a network (*e.g.*, the internet) to the central server. Instead, as explained above, *Woycik* expressly relies on an in-store, local server (server of the

server kiosk 16, 82) to communicate with the kiosk via a LAN, and then the central server via the internet. In other words, in each example of *Woycik*, the local server of the server kiosk acts as the middleman for all communications. As described in *Woycik*, a key advantage of the systems is the local server. Ex. 1004, [0095]. In my opinion, when *Woycik* is viewed in its entirety, the “remote server such as the central server **22** of FIG. 1” communicates only with the local server, while the client likewise only communicates with the local server (and not the remote server, which has the web server). *Id.* at [0117].



Id. at FIG. 3 (annotated).

114. Therefore, in my opinion, *Woycik* fails to disclose “at least one POS terminal configured to: ... transmit, from at least one of the one or more POS

terminals over the network, further information,” as recited in Claim 27.

3. Claim 42

115. I understand that Claim 42 recites similar limitations to Claim 1, but recites a method of implementing a web-based point of sale (POS) builder system,⁴ with limitations similar to the limitations of Claim 1. For the same reasons as discussed above, *Woycik* fails to disclose a method of implementing a web-based point of sale system and the limitations recited in Claim 42. *See supra* Section IX.A.1.

116. Specifically, in my opinion, *Woycik* does not disclose a “web-based point of sale (POS) builder system,” at least because *Woycik* requires an in-store server, with the administration tool installed thereon, which communicates over LAN 40, not the Internet. Ex. 1001, Claim 42. Like the prior art before the ’793 Patent, *Woycik* teaches a server at each store. Ex. 1004, [0071], [0095]. In fact, each embodiment in *Woycik* has a local server in the store, including the “local server kiosk” that “includes an administrative tool.” *Id.* at [0095]. For example, referring to Figure 1, *Woycik* states: “[i]n each store, the local (on-site) server **16** is connected to the Internet **18** which allows remote access by the restaurant chain operator **20** and enables the local server **16** to access a central server **22** for software and media

⁴ Properly construed, a “web-based point of sale (POS) builder system” is “a point of sale (POS) builder system that requires the internet.” *See supra* Section VII.

updates.” *Id.* at [0071]. *Woycik* continues: “a single store location will include at least one local server **16** and at least one client kiosk **30**.” *Id.* In some cases, a “server kiosk” may function as a “local server” for the other kiosks in the store. *Id.* at [0095]. *Woycik* explains, “one of the kiosks 16 is used both as a client ... and as the local server to interface to the Internet 18 and to respond to requests from the local client kiosks 30.” *Id.* at [0072]. Furthermore, *Woycik* explains that in the case of the computer of the server kiosk, the client portion of the server kiosk and the server portion of the server kiosk have independent roles. *See id.* at [0072] “This is accomplished by providing separate client and server software both on a single one of the kiosks 16.” *Id.*

4. Claim 43

117. Claim 43 is similar to Claim 27, but recites a method of implementing a web-based point of sale (POS) builder system,⁵ with limitations similar to the limitations of Claim 27. For the same reasons as discussed above, *Woycik* fails to disclose the limitations recited in Claim 43. *See supra* Section V.A.11.

118. Specifically, in my opinion, *Woycik* does not disclose a “web-based point of sale (POS) builder system,” at least because *Woycik* requires an in-store server, with the administration tool installed thereon, which communicates over

⁵ Properly construed, a “web-based point of sale (POS) builder system” is “a point of sale (POS) builder system that requires the internet.” *See supra* Section VII.

LAN 40, not the Internet. Ex. 1001, Claim 43. Like the prior art before the '793 Patent, *Woycik* teaches a server at each store. Ex. 1004, [0071], [0095]. In fact, each embodiment in *Woycik* has a local server in the store, including the “local server kiosk” that “includes an administrative tool.” *Id.* at [0095]. For example, referring to Figure 1, *Woycik* states: “[i]n each store, the local (on-site) server **16** is connected to the Internet **18** which allows remote access by the restaurant chain operator **20** and enables the local server **16** to access a central server **22** for software and media updates.” *Id.* at [0071]. *Woycik* continues: “a single store location will include at least one local server **16** and at least one client kiosk **30**.” *Id.* In some cases, a “server kiosk” may function as a “local server” for the other kiosks in the store. *Id.* at [0095]. *Woycik* explains, “one of the kiosks 16 is used both as a client ... and as the local server to interface to the Internet 18 and to respond to requests from the local client kiosks 30.” *Id.* at [0072]. Furthermore, *Woycik* explains that in the case of the computer of the server kiosk, the client portion of the server kiosk and the server portion of the server kiosk have independent roles. *See id.* at [0072] “This is accomplished by providing separate client and server software both on a single one of the kiosks 16.” *Id.*

119.

5. Claim 44

120. Claim 44 recites similar limitations to Claim 1. For the same reasons

as discussed above, *Woycik* fails to disclose these features for the same reasons. *See supra* Section IX.A.1.

121. Specifically, in my opinion, *Woycik* does not disclose a “web-based point of sale (POS) builder system,”⁶ at least because *Woycik* requires an in-store server, with the administration tool installed thereon, which communicates over LAN 40, not the Internet. Ex. 1001, Claim 44. Like the prior art before the ’793 Patent, *Woycik* teaches a server at each store. Ex. 1004, [0071], [0095]. In fact, each embodiment in *Woycik* has a local server in the store, including the “local server kiosk” that “includes an administrative tool.” *Id.* at [0095]. For example, referring to Figure 1, *Woycik* states: “[i]n each store, the local (on-site) server **16** is connected to the Internet **18** which allows remote access by the restaurant chain operator **20** and enables the local server **16** to access a central server **22** for software and media updates.” *Id.* at [0071]. *Woycik* continues: “a single store location will include at least one local server **16** and at least one client kiosk **30**.” *Id.* In some cases, a “server kiosk” may function as a “local server” for the other kiosks in the store. *Id.* at [0095]. *Woycik* explains, “one of the kiosks **16** is used both as a client ... and as the local server to interface to the Internet **18** and to respond to requests from the local client kiosks **30**.” *Id.* at [0072]. Furthermore, *Woycik* explains that in the case

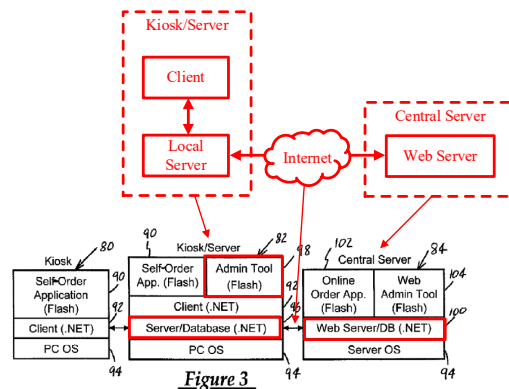
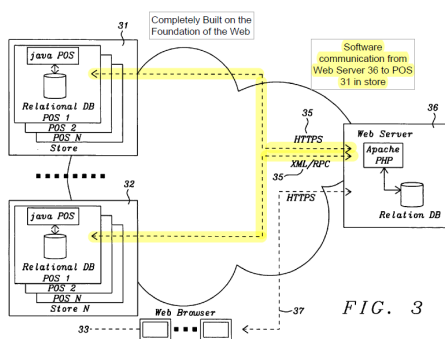
⁶ Properly construed, a “web-based point of sale (POS) builder system” is “a point of sale (POS) builder system that requires the internet.” *See supra* Section VII.

of the computer of the server kiosk, the client portion of the server kiosk and the server portion of the server kiosk have independent roles. *See id.* at [0072] “This is accomplished by providing separate client and server software both on a single one of the kiosks 16.” *Id.*

122. In my opinion, *Woycik* does not disclose communicate one or more POS terminals over a network comprising the Internet and “receiv[ing] over the network from a POS builder interface, information used for creating or modifying the one or more POS screens” because the administrative tool and web server identified by Petitioner are co-located at the central server. Ex. 1004, FIG. 1, FIG. 3, [0071]-[0072], [0095]); Ex. 1001, Claim 44. In my opinion, Petitioner improperly ignores the express teachings of *Woycik* that disclose that the administrative tool and web server, identified by Petitioner, are co-located at the central server. *Compare* Petition, 22-23 *with* Ex. 1004, FIG. 1, FIG. 3, [0071]-[0072], [0095]).

123. For example, FIG. 1 discloses that the kiosk/server 82, not kiosk 80, is connected to the central server via the Internet. Ex. 1004, [0071]. Furthermore, the portions of *Woycik* that reference using the administrative tool via a network (the Internet), refer to the remote version of the administrative tool (from the central server), which accesses the local version of the administrative tool at the local server via the network. *Id.* at [0122]. The administrative tool accessing the local server is different than accessing the central server over a network comprising the internet, as

depicted in the annotated FIG. 3 below. For example, the portions of *Woycik* where the administrative tool is separated from the web server via a network (the Internet) and, the administrative tool is the local version modifying kiosk configurations at the local server, not accessing the web server via a network comprising the internet. *Id.* at [0095]. “All of these settings are stored on the local server 16, 82. The administrative tool 98 allows an administrator to modify these settings via a local kiosk touch screen.” *Id.* Indeed, unlike in the ’793 Patent (Fig. 3), the local server of *Woycik* (FIG. 1 and FIG. 3), not the “POS builder interface” communicates over the internet with central server 22.



Ex. 1001 (’793 Patent), Fig. 3 (annotated) Ex. 1004, Fig. 1 and 3 (annotated)

124. Additionally, each of Figures 23, 24, and 25 of *Woycik* illustrate examples of *Woycik*’s reliance on an in-store, local server (server of the server kiosk 16, 82), even when a client receives communications from the central server; FIG. 3 illustrates the components referenced in FIG. 23, FIG. 24, and FIG. 25:

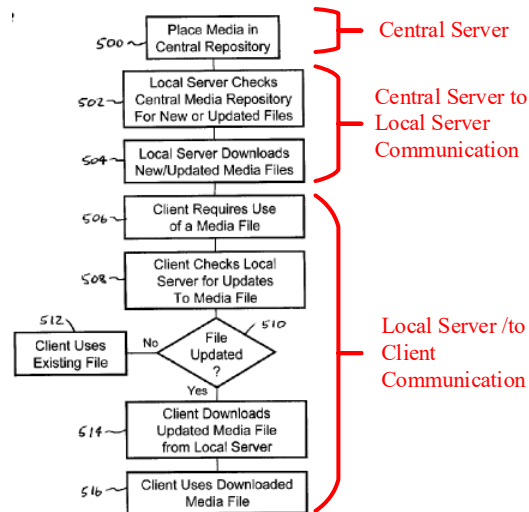


Figure 23

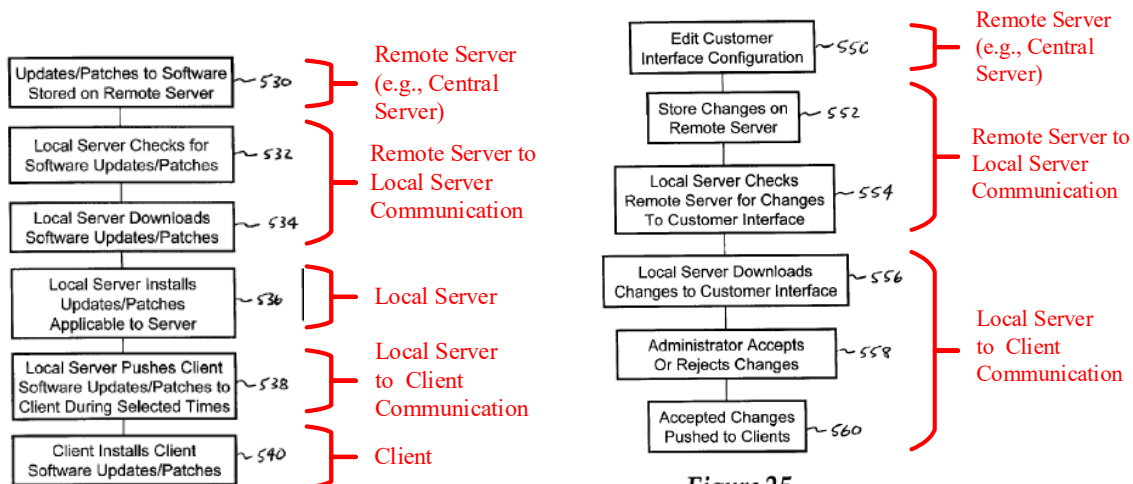


Figure 25

Ex. 1004, FIGs. 23-25 (annotated).

125. In my opinion, in each example, the local server of the server kiosk acts as the middleman for all communications: the “remote server such as the central server 22 of FIG. 1” communicates only with the local server, while the client likewise only communicates with the local server (and not the remote server, which

has the web server). Ex. 1004, [0117]).

126. Therefore, in my opinion, *Woycik* does not disclose “communicate one or more POS terminals over a network comprising the Internet and “receiv[ing] over the network from a POS builder interface, information used for creating or modifying the one or more POS screens,” as recited in Claim 44.

127. In my opinion, *Woycik* does not disclose “receive, from at least one of the one or more POS terminals over the network, further information regarding one or more POS transactions corresponding to the one or more item,” at least” because *Woycik* expressly relies on an in-store, local server (local server of server kiosk 16, 82) to communicate with the central server. Ex. 1001, Claim 44. As explained above, Figures 23-25 demonstrate *Woycik*’s express reliance on an in-store, local server to act as the middleman for all communications to the central server over a network (the internet). Ex. 1004, [0117]. The reliance on an in-store local server to communicate to the central server over a network (the internet) is further depicted in annotated FIG. 3.

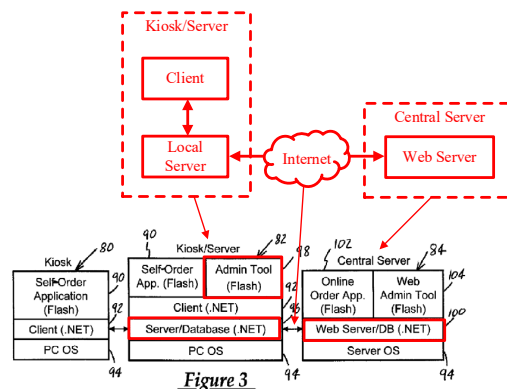


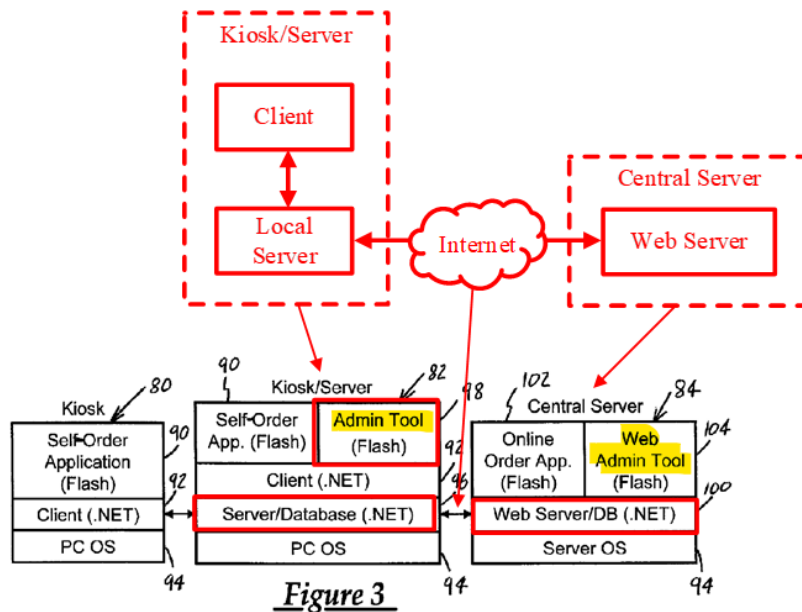
Figure 3

Ex. 1004, Fig. 3 (annotated).

128. In my opinion, *Woycik* does not disclose “a POS builder interface configured to be accessible via network communication with said web server over a communications network” at least because the administrative tool and web server identified by Petitioner are co-located at the central server. *Woycik* does not teach a POS builder interface accessible over a communications network with a web server. Therefore, in my opinion, *Woycik* does not disclose “communicate one or more POS terminals over a network comprising the Internet and “receiv[ing] over the network from a POS builder interface, information used for creating or modifying the one or more POS screens,” as recited in Claim 44.

129. In my opinion, *Woycik* does not teach “configure the one or more POS terminals with the information over the network to create or modify based on the further information regarding one or more POS transactions the one or more POS screens displayed on the one or more POS terminals,” at least because the central server does not configure kiosk 80 over a network (*e.g.*, the Internet). Instead, as explained above, *Woycik* expressly relies on an in-store, local server (server of the server kiosk 16, 82) to communicate with the central server.

130. Additionally, in my opinion, the administrative tool identified is not the same as the “web-admin tool” expressly taught by *Woycik*. In my opinion, Petitioner improperly ignores the express teachings of *Woycik* which requires a local server.



Ex. 1004, FIG. 3 (annotated). As explained in *Woycik*, a key advantage of the systems is the local server. *Id.* at [0095]. The local “admin tool” 98, **not** the web admin tool 104, of modifies (*e.g.*, configures) kiosk configurations **at the local server**. Ex. 1004, FIG. 3. The administrative tool accessing the **local server** is different than accessing the **web server at the central server**. Contrary to Petitioner’s assertion, the portions of *Woycik* that reference using the administrative tool via a network (the Internet), refer to the remote version of the administrative tool, which accesses the **local version** of the administrative tool **at the local server** via a network. Ex. 1004, [0122].

131. When viewed in its entirety, the portions of *Woycik* where the administrative tool is separated from the web server via a network (*e.g.*, the Internet), the administrative tool is the local version 98 that configures the kiosks **at the local**

server over LAN 40, not a network comprising the internet, as recited in the claims. Ex. 1004, [0095]. “All of these settings are stored on the local server **16, 82**. The administrative tool **98** allows an administrator to modify these settings via a local kiosk touch screen.” *Id.*

132. Therefore, in my opinion, *Woycik* fails to disclose “receive, from at least one of the one or more POS terminals over the network, further information regarding one or more POS transactions corresponding to the one or more item,” as recited in Claim 44.

B. Ground 2

1. Claim 1

133. In my opinion, *Tengler* does not disclose a “web-based point of sale (POS) builder system,” at least because *Tengler* requires an in-store local server that does not require the Internet. Like the prior art before the ’793 Patent, *Tengler* teaches a server at each store. For example, referring to FIG. 14, *Tengler* expressly requires “a central server in the restaurant.” Ex. 1005, [0088]. Specifically, *Tengler* states, “the restaurant management software 600 includes a portion that runs on a central server in the restaurant and is called the restaurant management system (RMS) server 604”). *Id.* Additionally, *Tengler* states,

[t]he server 604 stores restaurant status and order status information for local viewing at registers, stations, terminals, and other devices connected to a **local area network**. The RMS server 604 tracks the

current state of restaurant 2 (for example, open or closed) and also tracks the state of all pending orders at all times and stores this information in a “shoebox” database 605.

Id. Therefore, in my opinion, each embodiment in *Tengler* has a local server in the store.

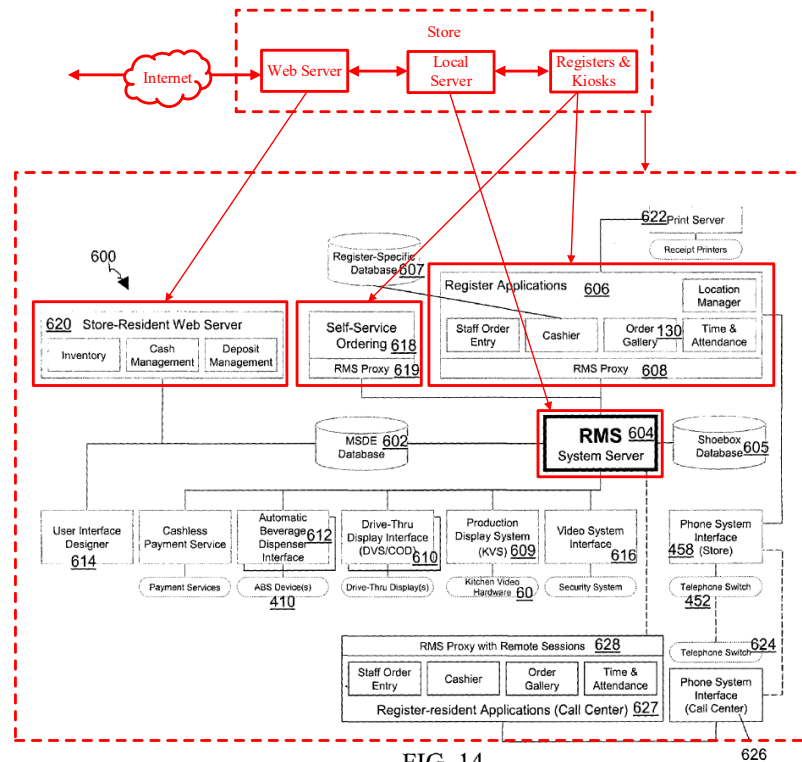


FIG. 14

Ex. 1005, FIG. 14 (annotated). In my opinion, *Tengler* does not teach or describe any POS builder software installed on a web server. Rather, *Tengler* relies on in-store application servers to run its deficient computer-based ordering system. “For example, the JavaBeans API used in JavaPOS communicates with Java servers such as J2EE servers and not a web server.” Ex. 1005, [0115] and [0121].

134. Therefore, in my opinion, *Tengler* does not disclose a “web-based point of sale (POS) builder system” as recited in Claim 1.

135. *Tengler* does not teach “communicate with one or more POS terminals over a network comprising the Internet.” Contrary to Petitioner’s assertions, when *Tengler* is considered in its entirety, a POSITA would not have been motivated “to use the Internet to connect the central (web) server to in-store POS terminals (*e.g.*, via server 464) providing a simple, ubiquitous, and inexpensive network connection to stores in different locations managed from the central server.” For example, *Tengler* discloses a Multi-Unit-Management-Interface (MUMI) to connect a central computer to a set of restaurants with a requirement for “guaranteed message delivery.” Ex. 1005, [0108]. However, the Internet does not guarantee message delivery. Petitioner’s proposal to use the Internet to connect server 464 at each restaurant to a central server fails to address *Tengler*’s MUMI requirement for guaranteed message delivery, which cannot be provided by the Internet because it does not guarantee message delivery. Petition, 76-77, Mowry, [0172]. Therefore, *Tengler*, does not teach “communicate with one or more POS terminals over a network comprising the Internet.”

136. In my opinion, *Tengler* does not teach or disclose “at least one server configured to: ... receive, over the network from a POS builder interface,

information used for creating or modifying the one or more POS screens”⁷ because the administrative tool and web server identified by Petitioner are co-located at the central server. In my opinion, Petitioner considers the “user interface designer 614” as corresponding to “a POS builder.” Petition, 73. Then in a footnote, Petitioner concludes that “references herein to ‘user interface designer’ include related software and system objects.” *Id.*, n.9. However, in my opinion, the “manager GUI interfaces **192**, **196**” and “user interface designer **614**” are two separate systems disclosed in *Tengler*. Ex. 1005, [0105].

137. In my opinion, Petitioner combines two separate systems disclosed in *Tengler* in an attempt to recreate the elements of the claimed invention. Petition, 80-85. This attempt is futile because Petitioner has failed to demonstrate that *Tengler* teaches that the manager GUI interfaces **192** and **196** are used to access the user interface designer **614**. To the contrary, *Tengler* teaches that the manager interfaces and the user interface designer are two distinct ways to “edit the user interface of the register and self-service applications.” Ex. 1005, [0103]. For

⁷ Independent Claim 1 recites “at least one server configured to: ... receive, over the network from a POS builder interface, information used for creating or modifying the one or more POS screens.” Ex. 1001, Claim 1. Similarly, independent Claim 42 recites “receiving, over the network from a POS builder interface, information used for creating or modifying the one or more POS screens.” Ex. 1001, Claim 42. Independent Claim 44 recites “at least one server configured to: ... receive, over the network from a POS builder interface, information for creating or modifying functionality of the one or more POS terminals.” Ex. 1001, Claim 44.

example, paragraph 103 of *Tengler* states, in pertinent part, “[a] user interface designer **614** allows management to edit the user interface of the register and self-service applications and also saves the specifications in the database **602**.” *Id.* It further states, “[t]he store resident web server **620** also allows managers to edit the user interface of the register and self-service applications and also saves the specifications in the database **602**.” *Id.* Managers utilize the manager interfaces **192** and **196** to edit the user interface of the register and self-service applications using the web server **620**. *Id.* at [0109] and [0073]. Furthermore, “the store-resident web server **620** and the user interface designer **614** [both] directly connect with the database **602**,” *Id.* at [0107] and FIG. 14. Finally, *Tengler* explicitly states, “[t]he manager’s interface[s] **192** and **196** are] linked directly to the database in the restaurant (without the intervention of any intermediary database or process) ...” *Id.* at [0073]. Therefore, the manager GUI interfaces **192** and **196** are not used to access the user interface designer **614** allowing managers to create/modify POS screens. Essentially, *Tengler* teaches two methods for “edit[ing] the user interface of the register and self-service applications”: *first*, via the user interface designer **614**; and *second*, via the manager interfaces **192** and **196** accessed through the web server **620**. If, as Petitioner contends, the manager interfaces **192** and **196** are utilized to access user interface designer **614**, there would be no need for both the user interface designer **614** and the store resident web server **620** to possess the capability to save

the updated specifications to the database **602**.

138. Additionally, in my opinion, *Tengler* teaches away from using any intermediary process between the manager interfaces **192** and **196** and the database because *Tengler* teaches “the manager’s interface[s **192** and **196** are] linked directly to the database in the restaurant (without the intervention of any intermediary database or process).” EX1005, [0073].

139. Therefore, in my opinion, *Tengler* fails to teach “at least one server configured to: ... receive, over the network from a POS builder interface, information used for creating or modifying the one or more POS screens including creating or modifying one or more display interfaces for display on the one or more POS screens, the one or more display interfaces being associated with one or more items,” as recited in Claim 1.

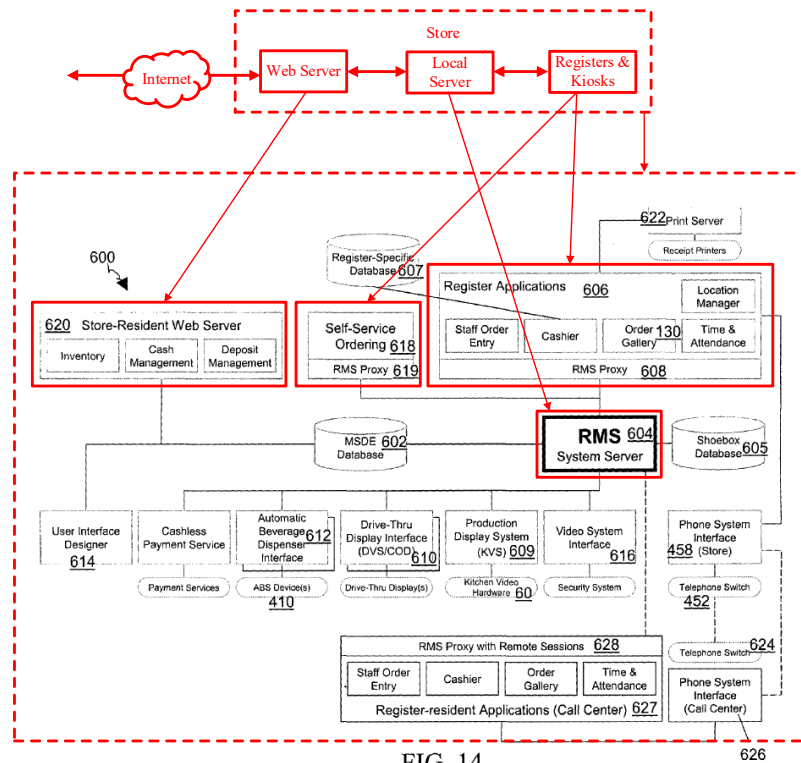
2. Claim 27

140. In my opinion, *Tengler* does not disclose a “web-based point of sale (POS) builder system,” at least because *Tengler* requires an in-store local server that does not require the Internet. Like the prior art before the ’793 Patent, *Tengler* teaches a server at each store. For example, referring to FIG. 14, *Tengler* expressly requires “a central server in the restaurant.” Ex. 1005, [0088]. *Tengler* states, “the restaurant management software 600 includes a portion that runs on a central server in the restaurant and is called the restaurant management system (RMS) server 604.”

Id. Additionally, *Tengler* states,

[t]he server 604 stores restaurant status and order status information for local viewing at registers, stations, terminals, and other devices connected to a **local area network**. The RMS server 604 tracks the current state of restaurant 2 (for example, open or closed) and also tracks the state of all pending orders at all times and stores this information in a “shoebox” database 605.

Id. In fact, each embodiment in *Tengler* has a local server in the store.



Id. at FIG. 14 (annotated).

141. In my opinion, *Tengler* does not teach or describe any POS builder

software installed on a web server. Rather, *Tengler* relies on in-store application servers to run its deficient computer-based ordering system. “For example, the JavaBeans API used in JavaPOS communicates with Java servers such as J2EE servers and not a web server.” Ex. 1005, [0115], [0121]).

142. Therefore, in my opinion, *Tengler* does not disclose a “web-based point of sale (POS) builder system” as recited in Claim 27.

143. In my opinion, *Tengler* does not disclose “at least one POS terminal configured to: ... transmit, from at least one of the one or more POS terminals over the network, further information regarding one or more POS transactions corresponding to the one or more items,” at least because “database 602” is not stored “a network comprising the Internet.” For this limitation, Petitioner merely states that *Tengler* teaches this limitation because “[t]he information is transmitted from the POS terminals to main server 464 and stored in its database 602.” Petition, 124 (citations omitted). However, Claim 27 recites in part a “POS terminal configured to: transmit, from the at least one or more POS terminals over the network [comprising the Internet], further information.” As Figure 14 illustrates, the MSDE database 602 is not stored on the transmitted over the network comprising the Internet to the web server in *Tengler*:

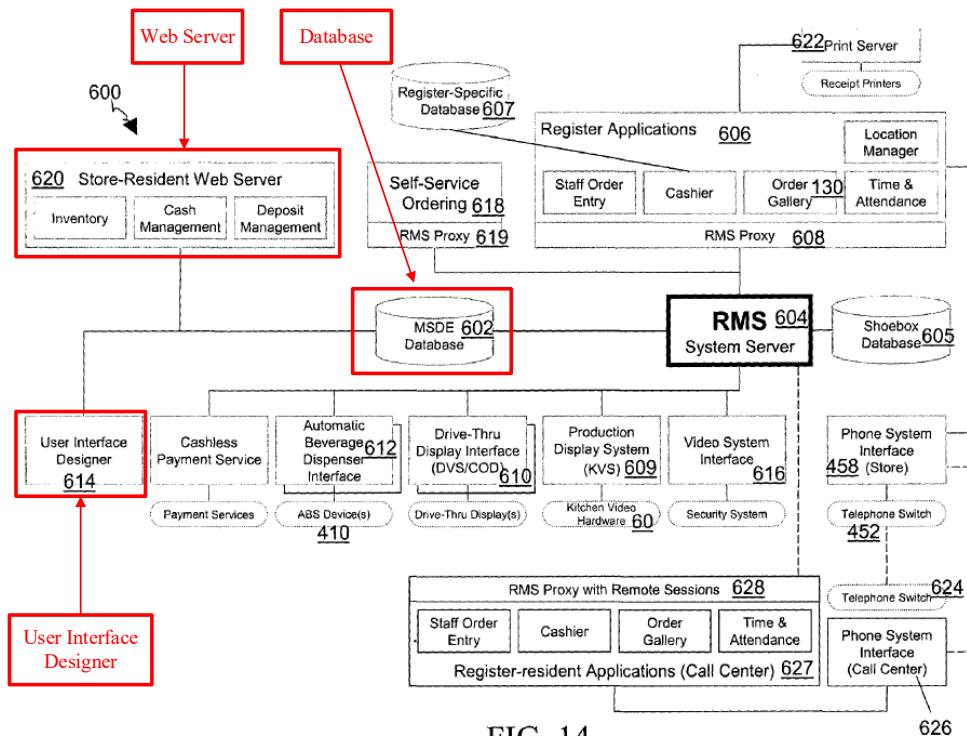


FIG. 14

Ex. 1005, FIG. 14 (annotated). Instead, Figure 15 illustrates separate modules in the Office 24 for the “system server 604,” “MSDE Database 602,” and “Store-Resident Web Server 620.” EX1005, FIG. 15. As such, *Tengler* does not teach or disclose that the terminals transmit information from the POS terminals to the main server 464 over a network comprising the Internet. In fact, as shown by Petitioner, server 464 is merely “communicates with other in-store devices ‘using network 462’ and is “accessible ‘over the Internet.’” Petition, 74.

144. Therefore, in my opinion, *Tengler* does not teach or disclose “at least one POS terminal configured to: ... transmit, from at least one of the one or more POS terminals over the network [comprising the Internet], further information

regarding one or more POS transactions corresponding to the one or more items,” as recited by Claim 27.

3. Claim 42

145. I understand that Claim 42 recites similar limitations to Claim 1, but recites a method of implementing a web-based point of sale (POS) builder system,⁸ with limitations similar to the limitations of Claim 1. For the same reasons as discussed above, *Tengler* fails to disclose a method of implementing a web-based point of sale system and the limitations recited in Claim 42. *See supra* Section IX.B.1.

146. In my opinion, *Tengler* does not disclose a “method of implementing a web-based point of sale (POS) builder system,” at least because *Tengler* requires an in-store local server that does not require the Internet. Like the prior art before the ’793 Patent, *Tengler* teaches a server at each store. For example, referring to FIG. 14, *Tengler* expressly requires “a central server in the restaurant.” Ex. 1005, [0088]. *Tengler* states, “the restaurant management software 600 includes a portion that runs on a central server in the restaurant and is called the restaurant management system (RMS) server 604”). *Id.* Additionally, *Tengler* states,

[t]he server 604 stores restaurant status and order status information for local viewing at registers, stations, terminals,

⁸ Properly construed, a “web-based point of sale (POS) builder system” is “a point of sale (POS) builder system that requires the internet.” *See supra* Section VII.

and other devices connected to a **local area network**. The RMS server 604 tracks the current state of restaurant 2 (for example, open or closed) and also tracks the state of all pending orders at all times and stores this information in a “shoebox” database 605.

EX1005, [0088]. In fact, each embodiment in *Tengler* has a local server in the store.

147. In my opinion, *Tengler* does not teach or describe any method of implementing POS software installed on a web server, let alone POS builder software installed on a web server. Rather, *Tengler* relies on in-store application servers to run its deficient computer-based ordering system. “For example, the JavaBeans API used in JavaPOS communicates with Java servers such as J2EE servers and not a web server.” Ex. 1005, [0115], [0121].

148. Therefore, in my opinion, *Tengler* does not disclose “a method of implementing a web-based point of sale (POS) builder system,” as recited in Claim 42.

149. In my opinion, *Tengler* does not teach or disclose, “receiving, over the network [comprising the Internet] from a POS builder interface, information used for creating or modifying the one or more POS screens including creating or modifying one or more display interfaces for display on the one or more POS screens, the one or more display interfaces being associated with one or more items.” I understand that Petitioner considers the “user interface designer 614” as

corresponding to “a POS builder.” Petition, 80.⁹ Then in a footnote, Petitioner concludes that “references herein to ‘user interface designer’ include related software and system objects.” *Id.*, n.10. However, the “manager GUI interfaces **192, 196**” and “user interface designer **614**” are two separate systems disclosed in *Tengler*. Ex. 1005, [0105]. In my opinion, Petitioner combines two separate systems disclosed in *Tengler* in an attempt to recreate the elements of the claimed invention. This attempt is futile because Petitioner has failed to demonstrate that *Tengler* teaches that the manager GUI interfaces **192** and **196** are used to access the user interface designer **614**. Petition, 81-85. To the contrary, *Tengler* teaches that the manager interfaces and the user interface designer are two distinct ways to “edit the user interface of the register and self-service applications.” Ex. 1005, [0103]. For example, paragraph 103 of *Tengler* states, in pertinent part, “[a] user interface designer **614** allows management to edit the user interface of the register and self-service applications and also saves the specifications in the database **602**.” *Id.* at [0103].

150. *Tengler* further states, “[t]he store resident web server **620** also allows managers to edit the user interface of the register and self-service applications and also saves the specifications in the database **602**.” Ex. 1005, [0103]. Managers utilize the manager interfaces **192** and **196** to edit the user interface of the register

⁹ Petitioner relies on the same argument as for Claim 1. Petition, 126-127.

and self-service applications using the web server **620**. *Id.* at [0109] and [0073]. Furthermore, “the store-resident web server **620** and the user interface designer **614** [both] directly connect with the database **602**,” *Id.* at [0107] and FIG. 14. Finally, *Tengler* explicitly states, “The manager’s interface[s] **192** and **196** are] linked directly to the database in the restaurant (without the intervention of any intermediary database or process).” *Id.* at [0073]. Therefore, the manager GUI interfaces **192** and **196** are not used to access the user interface designer **614** allowing managers to create/modify POS screens.

151. Essentially, *Tengler* teaches two methods for “edit[ing] the user interface of the register and self-service applications”: *first*, via the user interface designer **614**; and *second*, via the manager interfaces **192** and **196** accessed through the web server **620**. If, as Petitioner contends, the manager interfaces **192** and **196** are utilized to access user interface designer **614**, there would be no need for both the user interface designer **614** and the store resident web server **620** to possess the capability to save the updated specifications to the database **602**.

152. Additionally, in my opinion, *Tengler* teaches away from using any intermediary process between the manager interfaces **192** and **196** and the database because *Tengler* teaches “the manager’s interface[s] **192** and **196** are] linked directly to the database in the restaurant (without the intervention of any intermediary database or process).” *Id.* at [0073].

153. Therefore, in my opinion, *Tengler* fails to teach “receiving, over the network from a POS builder interface, information used for creating or modifying the one or more POS screens including creating or modifying one or more display interfaces for display on the one or more POS screens, the one or more display interfaces being associated with one or more items,” as recited in Claim 42.

4. Claim 43

154. I understand that Claim 43 is similar to Claim 27,¹⁰ but recites a method of implementing a web-based point of sale (POS) builder system, with limitations similar to the limitations of Claim 27. For the same reasons as discussed above, *Tengler* fails to disclose the limitations recited in Claim 43. *See supra* Section IX.B.3.

5. Claim 44

155. Claim 44 recites similar limitations to Claim 1. For the same reasons as discussed above, *Tengler* fails to disclose these features for the same reasons. *See supra* Section IX.B.1.

156. Specifically, in my opinion, *Tengler* does not disclose a “web-based point of sale (POS) builder system,” at least because *Tengler* requires an in-store local server that does not require the Internet. Like the prior art before the ’793 Patent, *Tengler* teaches a server at each store.

¹⁰ Petitioner relies on the same argument as for Claim 27. Petition, 127-128.

157. For example, referring to FIG. 14, *Tengler* expressly requires “a central server in the restaurant.” Ex. 1005, [0088] (“the restaurant management software 600 includes a portion that runs on a central server in the restaurant and is called the restaurant management system (RMS) server 604”). Furthermore,

[t]he server 604 stores restaurant status and order status information for local viewing at registers, stations, terminals, and other devices connected to a **local area network**. The RMS server 604 tracks the current state of restaurant 2 (for example, open or closed) and also tracks the state of all pending orders at all times and stores this information in a “shoebox” database 605.

Id. at [0088]. Each embodiment in *Tengler* has a local server in the store.

158. In my opinion, *Tengler* does not teach or describe any POS builder software installed on a web server. Rather, *Tengler* relies on in-store application servers (*i.e.*, local servers) to run its deficient computer-based ordering system. “For example, the JavaBeans API used in JavaPOS communicates with Java servers such as J2EE servers and not a web server.” *Id.* at [0115] and [0121]. Therefore, *Tengler* does not disclose a “web-based point of sale (POS) builder system,” as recited in Claim 44.

159. In my opinion, *Tengler* does not teach or disclose “at least one server configured to: ... receive, over the network from a POS builder interface, information used for creating or modifying the one or more POS screens.” I

understand that Petitioner considers the “user interface designer 614” as corresponding to “a POS builder.” Petition, 81-85.¹¹ Then in a footnote, Petitioner concludes that “references herein to ‘user interface designer’ include related software and system objects.” *Id.* at n.9. However, the “manager GUI interfaces **192, 196**” and “user interface designer **614**” are two separate systems disclosed in *Tengler*. Ex. 1005, [0105]. Petitioner combines two separate systems disclosed in *Tengler* in an attempt to recreate the elements of the claimed invention. This attempt is futile because Petitioner has failed to demonstrate that *Tengler* teaches that the manager GUI interfaces **192** and **196** are used to access the user interface designer **614**. Petition, 81-85.

160. To the contrary, *Tengler* teaches that the manager interfaces and the user interface designer are two distinct ways to “edit the user interface of the register and self-service applications.” Ex. 1005, [0103]. For example, paragraph 103 of *Tengler* states, in pertinent part, “[a] user interface designer **614** allows management to edit the user interface of the register and self-service applications and also saves the specifications in the database **602**.” *Id.* It further states, “[t]he store resident web server **620** also allows managers to edit the user interface of the register and self-service applications and also saves the specifications in the database **602**.” *Id.* Managers utilize the manager interfaces **192** and **196** to edit the user interface of the

¹¹ Petitioner relies on the same argument as for Claim 1. Petition, 128.

register and self-service applications using the web server **620**. *Id.* at [0109] and [0073]. Furthermore, “the store-resident web server **620** and the user interface designer **614** [both] directly connect with the database **602**,” *Id.* at [0107] and FIG. 14. Finally, *Tengler* explicitly states, “[t]he manager’s interface[s] **192** and **196** are] linked directly to the database in the restaurant (without the intervention of any intermediary database or process).” *Id.* at [0073]. Therefore, in my opinion, the manager GUI interfaces **192** and **196** are not used to access the user interface designer **614** allowing managers to create/modify POS screens.

161. Essentially, *Tengler* teaches two methods for “edit[ing] the user interface of the register and self-service applications”: *first*, via the user interface designer **614**; and *second*, via the manager interfaces **192** and **196** accessed through the web server **620**. If, as Petitioner contends, the manager interfaces **192** and **196** are utilized to access user interface designer **614**, there would be no need for both the user interface designer **614** and the store resident web server **620** to possess the capability to save the updated specifications to the database **602**. Additionally, *Tengler* teaches away from using any intermediary process between the manager interfaces **192** and **196** and the database because *Tengler* teaches “the manager’s interface[s] **192** and **196** are] linked directly to the database in the restaurant (without the intervention of any intermediary database or process).” *Id.* at [0073].

162. Therefore, *Tengler* fails to teach “receive, over the network from a POS

builder interface, information used for creating or modifying the one or more POS screens including creating or modifying one or more display interfaces for display on the one or more POS screens, the one or more display interfaces being associated with one or more items,” as recited in Claim 44.

X. SECONDARY CONSIDERATIONS

163. I understand that secondary considerations evidence can establish that an invention appearing to have been obvious in light of the prior art was not. I further understand that all evidence pertaining to the objective indicia of nonobviousness must be considered before reaching an obviousness conclusion. I understand that there is no requirement that objective evidence must be tied exclusively to claim elements that are not disclosed in a particular prior art reference in order for that evidence to carry substantial weight. I further understand that the claimed combination as a whole may serve as a nexus for the objective evidence. I further understand from counsel that proof of nexus is not limited to only when objective evidence is tied to the supposedly new features.

164. **Long-Felt Need.** In my opinion, the claimed web-based point of sale builder system embodied in the '793 Patent solved a long felt, but unresolved need. For example, while traditional point of sale (POS) systems were tethered to in-store local servers and required expensive and time-consuming manual software configuration for store and restaurant owners to make even minor changes to menu

items or product offerings. In contrast, the claimed web-based point of sale system, allowed for more open, more prolific, and more standardized connectivity. More specifically, the patented invention, a web-based point of sale builder system, eliminated these challenges by providing an inexpensive and efficient method for “assist[ing] non-expert business operators in building, editing and testing a point of sale system to manage their businesses” while simultaneously removing the requirement of purchasing and maintaining on site computer servers for POS systems. Ex. 1001, Abstract, 5:56-58. Accordingly, a need existed for a web-based point of sale builder system embodied in the ’793 Patent. The inventors of the ’793 Patent recognized this need, and invented the claimed technology to address the need. In my opinion, prior attempts were unsuccessful, and the prior art teaches away from the claimed solution. For example, *Woycik* discussed at length above, focuses on the advantage of using a local server and not the web-based point of sale system as embodied by the claims of the ’793 Patent. By contrast, as CloudfChange explains above, the web-based POS builder system is built completely on the web and the software communicates from web server 36 to POS 31 in-store, as recited in claims. Ex. 1001, Claims 1, 14.

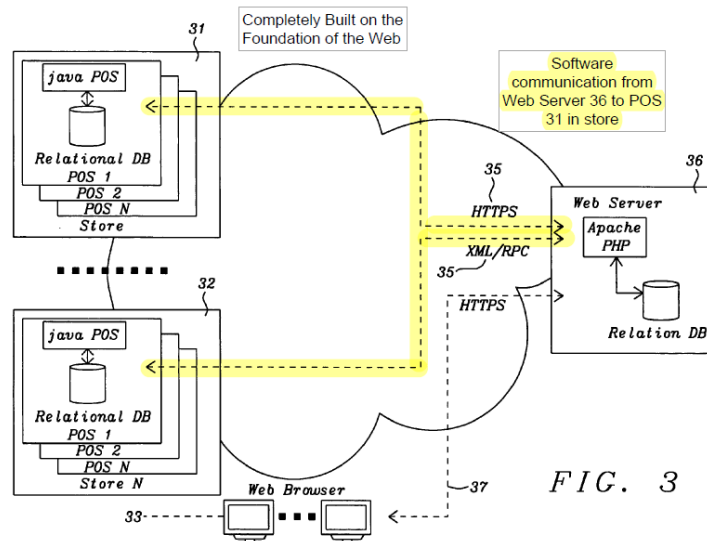


FIG. 3

Ex. 1001, FIG. 3 (annotated).

165. The invention of the '793 Patent is directed at an integral solution that allowed for more open, more prolific, and more standardized connectivity. The invention of the '793 Patent satisfied the long-felt need by replacing traditional point of sale (POS) systems with a web-based POS builder system built completely on the web. *Id.* As a result, the invention provides an inexpensive and efficient method for “assist[ing] non-expert business operators in building, editing and testing a point of sale system to manage their businesses” while simultaneously removing the requirement of purchasing and maintaining on site computer servers for POS systems. *Id.*

166. I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.