



ORAL ARGUMENT FOR IPR2023-01408

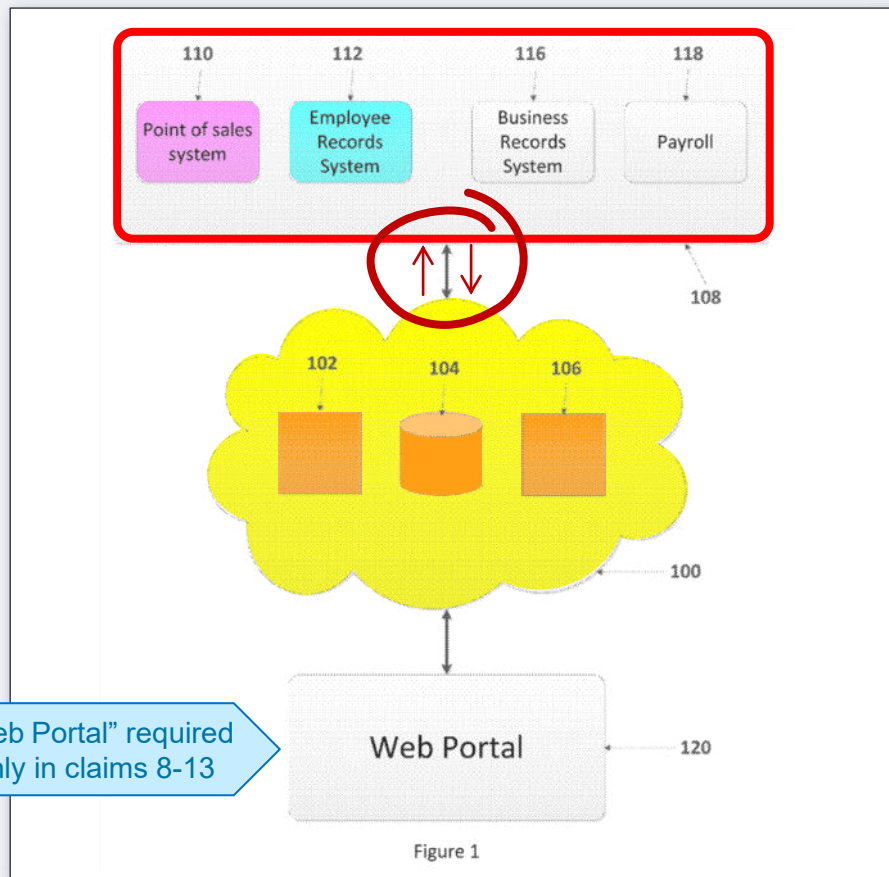
U.S. Patent No. 9,741,050

Petitioner's Hearing Demonstratives
January 10, 2025

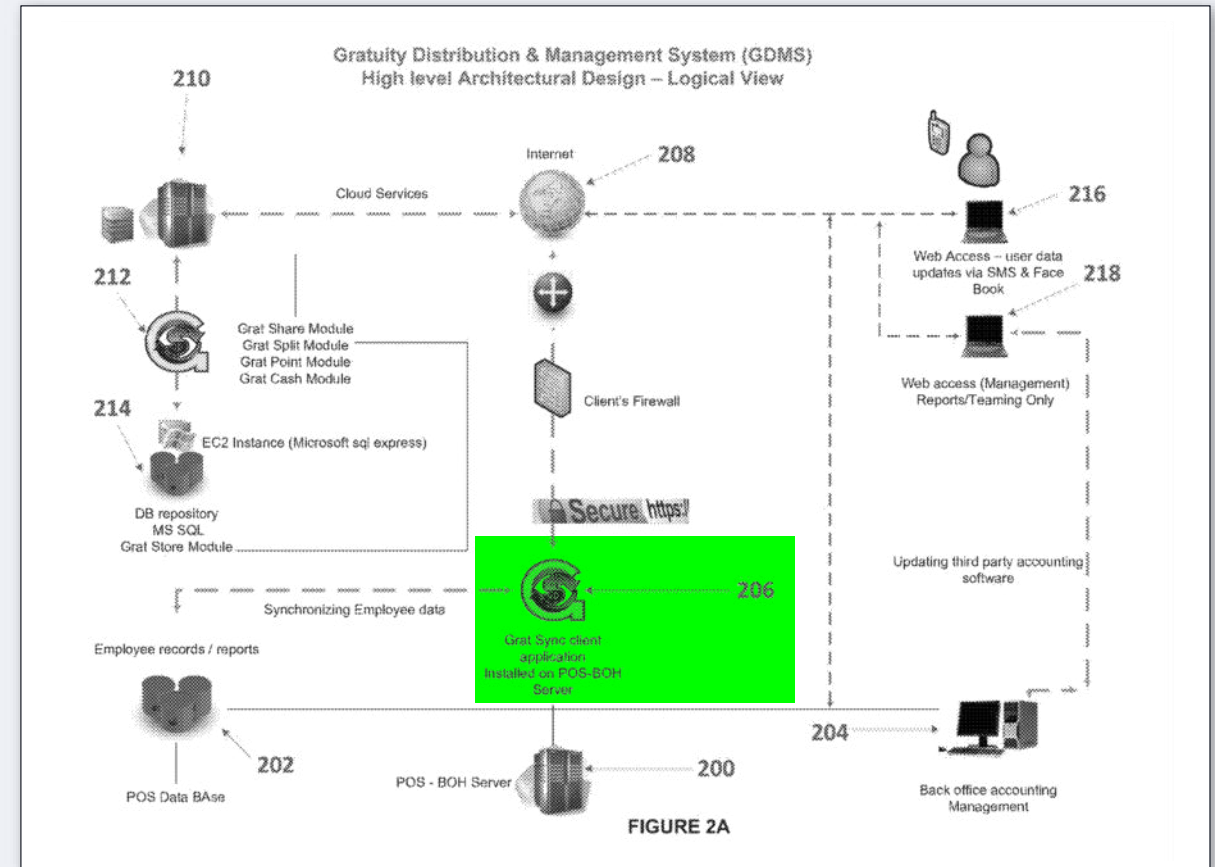
Overview of the '050 Patent

System 100: contains processor (102), database (104), configuration module (106) — applies gratuity distribution rules provided by restaurant (client)

System 100 interfaces with restaurant management system (108) to obtain information



Interface component (206) is located on business's systems and extracts transaction and employee information from point of sale ("POS") system (110) and employee record system (112)

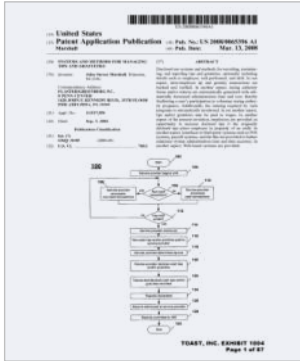


Ex. 1001 ('050 Patent) at Fig. 1, 6:28–30, 7:49–53, Fig. 2A;
Ex. 1002 (Russ Decl.) at ¶¶ 69–70, 72

The Challenged Claims of the '050 Patent Are Unpatentable

GROUND 1	Claims 1-3, 8, and 10 are obvious in view of Marshall (Ex. 1004)
GROUND 2	Claims 4-7, 9, and 11-13 are obvious in view of Marshall and Webb (Exs. 1004, 1006)
GROUND 3	Claims 1-3, 8, and 10 are obvious in view of Phillips and Marshall (Exs. 1005, 1004)
GROUND 4	Claims 4-7, 9, and 11-13 are obvious in view of Phillips, Marshall, and Webb (Exs. 1005, 1004, 1006)

Key Disputed Issues



Marshall

1. Whether Marshall discloses or renders obvious a gratuity management system that is “a cloud computing system remote from [a] plurality of client business systems.” (Response, 19-29, 39-40)
2. Whether Marshall discloses or renders obvious a gratuity management system having a server. (Response, 29-32)
3. Whether Marshall discloses or renders obvious a plurality of client business systems separate from the gratuity management system. (Response, 32-34)
4. Whether Marshall discloses or renders obvious an “interface component” or “gratuity sync client application.” (Response, 35-37; 40)
5. Whether Marshall discloses or renders obvious the “gratuity distribution rules for allocating gratuities” limitation. (Response, 37-39)

Phillips



Marshall

6. Whether Phillips, in combination with Marshall, renders obvious a remote, cloud-based gratuity management system having a server that is separate and distinct from any client point-of-sale server. (Response, 42-44)

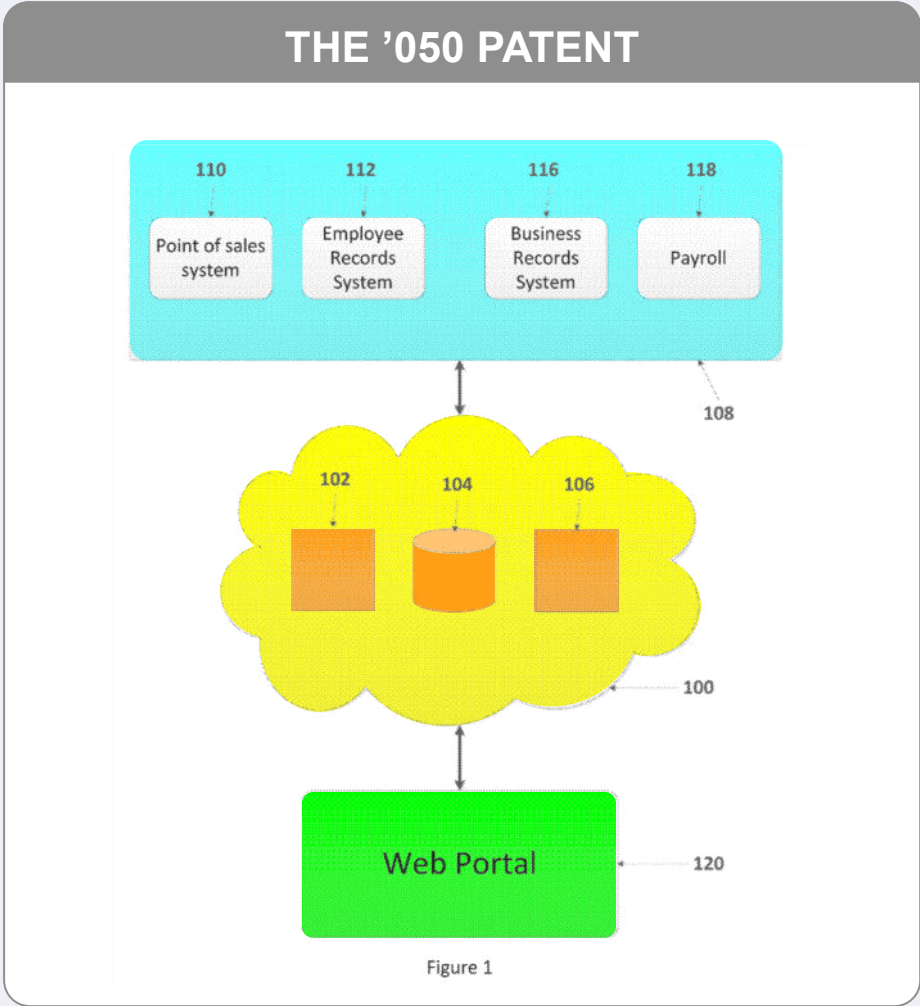
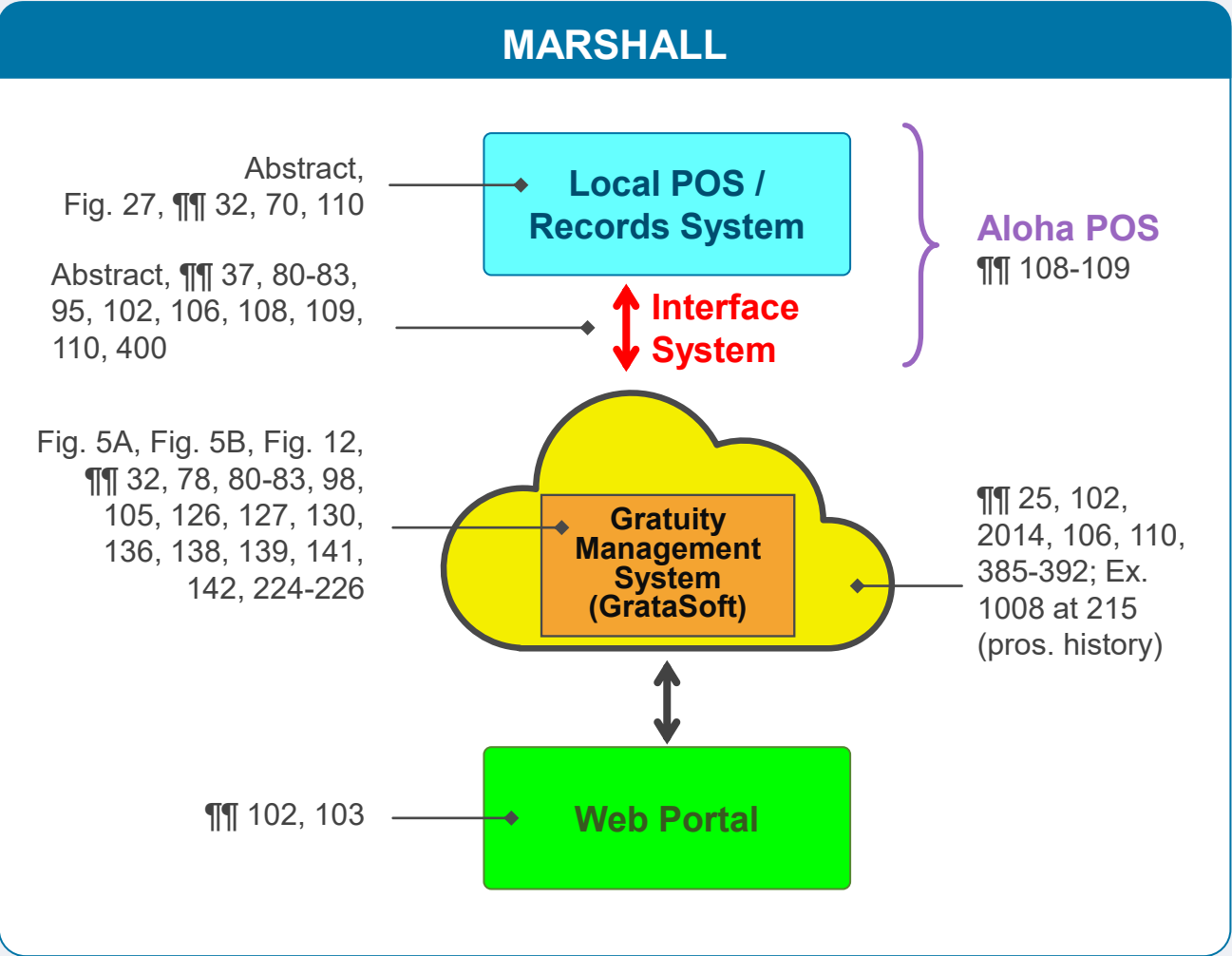
Person of Ordinary Skill in the Art

Undergraduate degree in electrical engineering, computer engineering, computer science, or equivalent degree with 2–3 years of experience in point-of-sale systems, time management systems, and/or restaurant management systems, and in networking and client-server architectures

Ground 1: Obviousness in View of Marshall

Claims 1–3, 8, 10

Marshall vs. '050 Patent



Ex. 1001 ('050 Patent) at Fig. 1, Ex. 1004 (Marshall)

Ground 1: Marshall

Claim	Limitation
1[pre]	A system, comprising:
1[a]	a gratuity management system, comprising
1[a.1]	a server coupled to a computer network and accessible by a plurality of clients, the server being configurable to independently execute gratuity distribution rules on a client-by-client basis; and
1[a.2]	a database, accessible by the server; and
1[b]	a plurality of client business systems in electronic communication with the server of the gratuity management system, each of the client business systems corresponding to one of the plurality of clients, each client business system comprising:
1[b.1]	at least one point of sale server; and
1[b.2]	a gratuity sync client application installed on the respective client business system;
1[c]	wherein the gratuity sync client application on each client business system is configured to
1[c.1]	(i) extract transaction information and employee information from the client business system and
1[c.2]	(ii) to initiate transfer of the extracted information to the gratuity management system;
1[d]	wherein the gratuity management system is a cloud computing system remote from the plurality of client business systems and configured to
1[d.1]	(i) receive the extracted transaction information and employee information from the plurality of client business systems and
1[d.2]	(ii) to store the received extracted information in the database; and
1[e]	wherein the gratuity management system is further configured to
1[e.1]	(i) execute, independently for each client, gratuity distribution rules for allocating gratuities among at least a portion of the employees and
1[e.2]	(ii) to determine a gratuity allocation based on at least the received extracted transaction information, the received extracted employee information, and the gratuity distribution rules and
1[e.3]	(iii) return the gratuity allocation to the gratuity sync client application of each respective client business system, without requiring the client business systems to execute the gratuity distribution rules.

Marshall renders obvious claim 1[a]

Claim	Limitation
1[a]	a gratuity management system, comprising
1[a.1]	a server coupled to a computer network and accessible by a plurality of clients, the server being configurable to independently execute gratuity distribution rules on a client-by-client basis; and
1[a.2]	a database, accessible by the server; and

(57)

ABSTRACT

Disclosed are systems and methods for recording, maintaining, and reporting tips and gratuities, optionally including details such as employee, task performed, and shift. In one

* * *

[0032] In yet another aspect of the present invention, a system for managing tips is provided. This system includes at least one software program, the at least one software

Ex. 1004 (Marshall), Abstract, ¶ 32; see also Ex. 1002 (Decl.), ¶ 109

Marshall renders obvious claim 1[a]

Claim	Limitation
1[a]	a gratuity management system, comprising
1[a.1]	a server coupled to a computer network and accessible by a plurality of clients, the server being configurable to independently execute gratuity distribution rules on a client-by-client basis; and
1[a.2]	a database, accessible by the server; and

[0098] Processing unit 302 may be a standard PC or server as is known in the art. However, any form of processing unit capable of executing an algorithm and storing data may be substituted in accordance with the present invention.

* * *

[0102] Connection of system 300 to Internet 318 allows the systems and methods of the present invention to be implemented in a Web-based manner. For example, the systems and methods of the present invention may be executed via a Web server or similar apparatus that interacts with one or more users via an Internet connection such as Internet connection 316 between the Web server and the user's local processing device or dumb terminal (e.g., a thin client, a thick client, etc.). Such web-based implementations may be programmed via a web programming tool such as the FUNCKy.com programming tool or the like. Such interaction may include receiving input from a user and/or providing output (e.g., reports) to a user via the Internet connection.

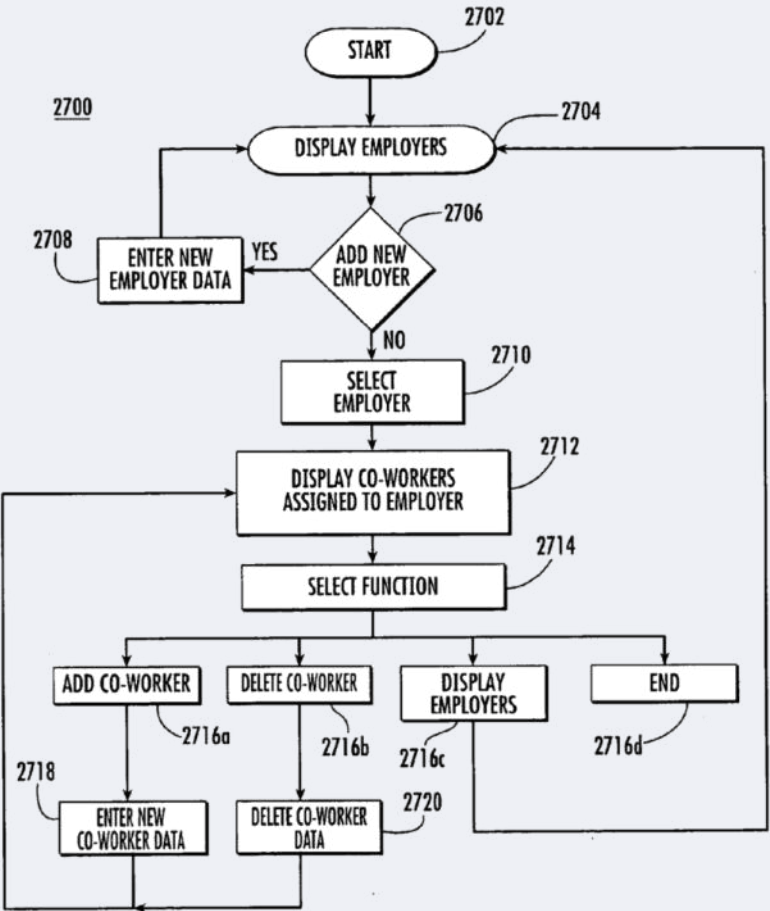
Ex. 1004 (Marshall), ¶¶ 98, 102; see also Ex. 1002 (Decl.), ¶¶ 110-18

Marshall renders obvious claim 1[a]

Claim	Limitation
1[a]	a gratuity management system, comprising
1[a.1]	a server coupled to a computer network and accessible by a plurality of clients, the server being configurable to independently execute gratuity distribution rules on a client-by-client basis; and

113. Further, Marshall discloses a “multi-employer” embodiment. Consider, e.g., Figure 27 and the associated description in ¶¶ 385–392. Marshall discloses: “In addition, in some aspects of the present invention, the individualized system is equipped with the ability to record data associated with multiple employers.” (*Id.*, ¶ 385.) Marshall further discloses: “Allowing co-worker and employer data to be defined in a single function is beneficial in a multi-employer individualized system since each of the entered co-workers should be associated with a specific one or more of the multiple employers.” (*Id.*, ¶ 386.) It is clear that a single employer could be as small as a single restaurant and that multiple employers spans multiple restaurants. The only way that the system of Figure 27 in Marshall can be operable is for it to be configured to maintain data for multiple restaurants or, in the language of the ’050 patent, multiple “clients.” (*See, e.g., Ex. 1001, 5:17* (providing “restaurant” as example of “client”).) Thus, one additional reason for the web-based implementation found in Marshall becomes clear—so that users from multiple restaurants can access the system.

Ex. 1002 (Decl.), ¶¶ 113; see also *id.* at ¶¶ 110-18



Ex. 1004 (Marshall), Fig. 27

Marshall renders obvious claim 1[a]

Claim	Limitation
1[a]	a gratuity management system, comprising
1[a.1]	a server coupled to a computer network and accessible by a plurality of clients, the server being configurable to independently execute gratuity distribution rules on a client-by-client basis; and
1[a.2]	a database, accessible by the server; and

[0127] System default settings may include setting days in a pay period and enabling/disabling options such as security features, report graphics, paying tips as wages (i.e., if this option is set to “on”, the business establishment retains

* * *

age of non-cash sales and cash tips and/or gratuities as a percentage of cash sales), ATIP (i.e., if this option is set to “on”, the system automatically attributes tips to all employees participating in the ATIP program) and such tips attributed tips are treated as if they were reported by the employee to the employer, Allocation Enabled (i.e., if this option is set to “on”, the system will automatically increase the tips and/or gratuities declared by the employee to meet IRS Form 8027 criteria), and Autocorrect (i.e., if this option is set to “on”, the system will automatically increase the tips and/or gratuities declared by the employee to meet TRDA criteria or to achieve an acceptable difference between credit card and cash tip and/or gratuity percentages). IS interface

Ex. 1004
(Marshall),
¶ 127

[0142] Although FIG. 5B depicts one method of attributing tips in accordance with one embodiment of the present invention, any reasonable method may be substituted without departing from the scope of the present invention. For example, in some embodiments, tips are attributed to each employee based upon the number of hours worked by each employee divided by the total number of hours worked by all employees during a particular shift, date, etc. In other embodiments, tips are attributed to each employee based upon the total sales of each employee divided by the total sales of all employees for a particular shift, date, etc. Or, in yet other embodiments, tips are attributed to a first subset of employees (e.g., servers) based upon a first method (e.g., hours worked by the employee versus hours worked by all employees) and tips are attributed to a second subset of employees (e.g., bartenders) based upon a second method (e.g., sales of each employee versus sales of all employees). That is, a combination of attribution methods may be used for different subsets of employees. Although the example provided herein includes two subsets, any number of subsets and any number of methods may be used without departing from the scope of the present invention.

Ex. 1004
(Marshall),
¶ 142; see
also *id.*, ¶¶
224-226

See also Paper 1 at 15-16; Ex. 1002 (Decl.), ¶¶ 110-18.

Marshall renders obvious claim 1[a]

Claim	Limitation
1[a]	a gratuity management system, comprising
1[a.1]	a server coupled to a computer network and accessible by a plurality of clients, the server being configurable to independently execute gratuity distribution rules on a client-by-client basis; and
1[a.2]	a database, accessible by the server; and

[0107] At 404, process 400 determines whether the GrataSoft system is set to automatically load sales data. If no, process 400 proceeds to 408. If yes, process 400 proceeds to 406, at which the GrataSoft system will query its existing data set to determine whether it is up to date. If it is not, it will automatically download all missing data. Such data may include non-cash sales, cash sales, non-cash tips and gratuities, and the like, which may be downloaded or uploaded to a local processing unit such as processing unit 302 from an IS.

Ex. 1004 (Marshall), ¶ 107

[0109] When a POS or similar type of system is interfaced to a system or process of the present invention such as the exemplary GrataSoft embodiment, employee information may be loaded directly from .DBF or similar files into the present invention, which avoids the need for re-entering employee information that has already been entered in the POS system. Similarly, job codes may be loaded directly from such systems to identify data such as clock in time, clock out time, hourly wage, total hours worked, task worked, etc. Additionally, non-cash sales, cash sales, gratuities, etc. may be loaded directly from such systems to identify and calculate gross sales information. Such loading ensures that the same information is present on both systems. Although specific items of information have been identified for transfer from the Aloha POS system to the present invention, the systems and methods of the present invention may be programmed to load any information available in the IS, regardless of whether the IS is an Aloha POS system, another brand of POS system, or a non-POS system, without departing from the scope of the present invention. Similarly, information may be loaded from .DBF or other types of files using similar methods.

Ex. 1004
(Marshall),
¶ 109

See also Paper 1 at 15-16; Ex. 1002 (Decl.), ¶¶ 110-18

Marshall renders obvious claim 1[a]

Claim	Limitation
1[a]	a gratuity management system, comprising
1[a.1]	a server coupled to a computer network and accessible by a plurality of clients, the server being configurable to independently execute gratuity distribution rules on a client-by-client basis; and
1[a.2]	a database, accessible by the server; and

[0130] At 504, the variables date, mealPeriod, and employeeID are initialized to the current date, to the first meal period (e.g., breakfast, lunch, dinner, etc.) of the initialized date, and to the first employee identification number as such numbers are stored in the GrataSoft system, respectively. In the GrataSoft system, the date variable allows entered tipouts and tips and/or gratuities (collectively, “tip information”) to be associated with the date on which the tips and/or gratuities are received by the service provider. Similarly, the mealPeriod variable allows the entered tip information to be associated with the shift during which the tipout and tip and/or gratuity transactions (collectively, “tip transactions”) take place. The employeeID variable allows entered tip information to be associated with the specific employeeID of the service provider who receives the tip transactions. In this exemplary embodiment, it is envisioned that the tip information will be entered into the GrataSoft system almost daily. However, the system may be programmed to allow the user to manually enter the desired date, rather than having the date default to the current date. In addition, varying data entry periods (weekly, monthly, etc.) may be substituted without departing from the scope of the present invention. Once all variables have been initialized, process 500 proceeds to 506.

* * *

[0141] At 556, the ATIP secondary percentage associated with the current meal period and the current task is multiplied by the total attributed tips (as calculated at 552) for the current date. In the exemplary GrataSoft embodiment of the present invention, the ATIP secondary percentages are defined as a part of process 1000b as discussed in greater detail below with respect to FIG. 10C. Process 500 then proceeds to 558, at which the total hours worked for the current meal period, current task, and current date are determined. Next, at 560, the total tips attributed for the current meal period and the current task (as calculated at 556) is divided by the total hours worked (as determined at 558), thereby providing the total attributed tips per hour for the current meal period, for the current task during the current date. Process 500 then proceeds to 564, at which the total attributed tips (as calculated at 562) is saved. This data is stored in conjunction with its respective date, mealPeriod, and employeeID variables in the form of a database or the like such as a Microsoft® Access® database using methods known in the art. However, alternate methods of saving sales data may be substituted (e.g., via registers, memory locations, etc.).

Ex. 1004 (Marshall), ¶¶ 130, 141

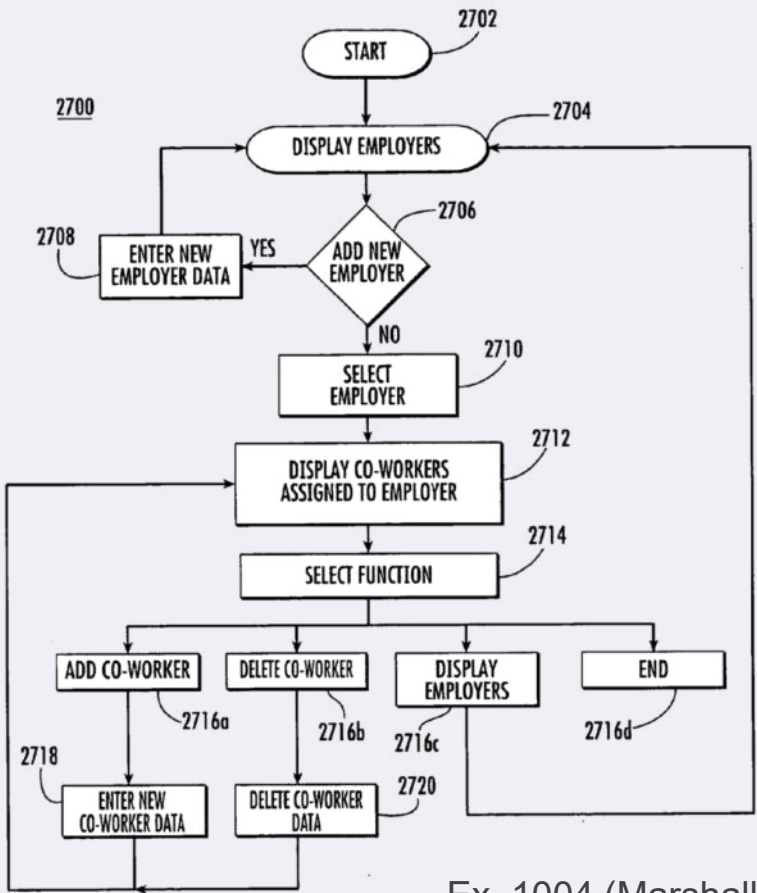
See also Paper 1 at 16-17; Ex. 1002 (Decl.), ¶ 120

Marshall renders obvious claim 1[b]

Claim Limitation

1[b]

a plurality of client business systems in electronic communication with the server of the gratuity management system, each of the client business systems corresponding to one of the plurality of clients, each client business system comprising:



Ex. 1004 (Marshall), Fig. 27;
see also *id.*, ¶¶ 385-92

123. As discussed above in connection with element 1[a.1], Marshall discloses or renders obvious “a server coupled to a computer network and accessible by a plurality of clients.” A POSITA would have understood that each client (i.e., each restaurant) would have its own client business system, such as POS systems and payroll systems, to track sales, payroll, and employee information. And because Marshall’s system 300 running the GrataSoft software is a “gratuity management system” configured to interface with the sub-components of a client business system,³ Marshall discloses or renders obvious “a plurality of client business systems in electronic communication with the server of the gratuity management system, each of the client business systems corresponding to one of the plurality of clients.”

Ex. 1002 (Decl.), ¶ 123

See also Paper 1 at 17-19; Ex. 1002, ¶¶ 122-36

Marshall renders obvious claim 1[b]

Claim	Limitation
1[b]	a plurality of client business systems in electronic communication with the server of the gratuity management system, each of the client business systems corresponding to one of the plurality of clients, each client business system comprising:
1[b.1]	at least one point of sale server; and
1[b.2]	a gratuity sync client application installed on the respective client business system;

Ex. 1004
(Marshall),
¶ 70

[0070] Whenever a service provider must process a payment, process 100 proceeds to 106. At 106, a determination is made regarding whether such payment will be made via a method other than cash. Non-cash payments are primarily credit card payments, however, such payments may also include, but are not limited to, checks such as personal checks and traveler's checks, house charges, and gift certificates. If yes, process 100 proceeds to 108 at which the service provider processes the non-cash transaction(s). In one aspect of the present invention, processing of non-cash transactions at 106 occurs via a POS system. A POS system, as is known in the art, captures data at the time and place of the sale (e.g., at the cash registers). Many POS systems include computers or specialized terminals that are co-located with cash registers, bar code readers, optical scanners, magnetic stripe readers, and the like such that information may be automatically captured by the computer or specialized terminal from the co-located equipment. Furthermore, many POS systems are networked or otherwise linked together such that data from each collection point is transferred to one central location for analysis, reporting, and the like.

128. In discussing Figure 1 ("a flow diagram of an exemplary process for managing tips and gratuities in accordance with the present invention"), Marshall further discloses:

* * *

(*Id.*, ¶ 70.) A POSITA would have understood that the recited **specialized terminal** and/or the **central location**, as described in Marshall, correspond to the claimed "point of sale server." In other words, a POSITA would have understood that a POS system, an integral part of a "client business system", includes "at least one point of sale server," as this would have been a common practice for a business client having multiple POS devices or other systems operating within its client business system. (See, e.g., the discussion in section IV above.) Indeed, the use of one or more servers (e.g., "at least one point of sale server") to keep track of customer payments, payroll, and time and attendance was extremely common in the art at the time of the '050 patent, as I explained above in the technical background section.

Ex. 1002
(Decl.),
¶ 128

See also Paper 1 at 17-19; Ex. 1002, ¶¶ 122-36

Marshall renders obvious claim 1[b]

Claim	Limitation
1[b]	a plurality of client business systems in electronic communication with the server of the gratuity management system, each of the client business systems corresponding to one of the plurality of clients, each client business system comprising:
1[b.1]	at least one point of sale server; and
1[b.2]	a gratuity sync client application installed on the respective client business system;

[0069] At 104, one or more service providers begin his or her shift. In one aspect of the present invention, the start of the shift includes “clocking in” via an employee time clock, an interfaced system (“IS”), or the like. Interfaced systems may include, but are not limited to, point-of-sale (“POS”) systems, electronic cash register systems, timeclock programs, time and attendance systems, payroll processing systems, and other similar systems as are known in the art. Such systems record an employee’s starting and ending work hours for the purposes of calculating total hourly wages based upon the quantity of hours worked. Once the service provider has “clocked in”, the service provider’s shift begins and the service provider provides patrons with the desired services. In the exemplary restaurant embodi-

Ex. 1004 (Marshall), ¶ 69; see also *id.*, Abstract, ¶¶ 110, 400

See also Paper 1 at 17-19; Ex. 1002, ¶¶ 122-36

[0108] In our exemplary embodiment, one such IS is an Aloha POS in the form of software, which is executed by the same processing unit (e.g., processing unit 302) that executes the present invention. The Aloha POS saves data in .DBF, or dBase, file structures. This data is transactional data that is stored in a small set of tables. For example, payments may be stored in a first PAYMENT.DBF file, item sales may be stored in a second ITEMSALES.DBF file, and staff time may be stored in a third STAFFTIME.DBF file. The Aloha POS also incorporates .DBF files for configuration files such as files containing task codes, rates, identification information, and employee information such as name, address, social security number, etc.

[0109] When a POS or similar type of system is interfaced to a system or process of the present invention such as the exemplary GrataSoft embodiment, employee information may be loaded directly from .DBF or similar files into the present invention, which avoids the need for re-entering employee information that has already been entered in the POS system. Similarly, job codes may be loaded directly

Ex. 1004 (Marshall), ¶¶ 108-09

Marshall renders obvious claim 1[c]

Claim	Limitation
1[c]	wherein the gratuity sync client application on each client business system is configured to
1[c.1]	(i) extract transaction information and employee information from the client business system and
1[c.2]	(ii) to initiate transfer of the extracted information to the gratuity management system;

[0108] In our exemplary embodiment, one such IS is an Aloha POS in the form of software, which is executed by the same processing unit (e.g., processing unit 302) that executes the present invention. The Aloha POS saves data in .DBF, or dBase, file structures. This data is transactional data that is stored in a small set of tables. For example, payments may be stored in a first PAYMENT.DBF file, item sales may be stored in a second ITEMSALES.DBF file, and staff time may be stored in a third STAFFTIME.DBF file. The Aloha POS also incorporates .DBF files for configuration files such as files containing task codes, rates, identification information, and employee information such as name, address, social security number, etc.

Ex. 1004 (Marshall), ¶ 108

138. With respect to sub-element 1[c](i), Marshall explains that the Aloha POS system (one exemplary component or form of the interface system, i.e., the “gratuity sync client application”) collects, organizes, and saves data from the client

* * *

(Id.) In other words, the Aloha POS (i.e., the “gratuity sync client application”) collects (“extracts”) the data (“transaction information and employee information”) from the client business system, classifies the data, and stores the data into appropriate files. Marshall further explains that these Aloha POS files may reside

Ex. 1002 (Decl.), ¶ 138

See also Paper 1 at 19-20; Ex. 1002 (Decl.), ¶¶ 138, 140-43

Marshall renders obvious claim 1[c]

Claim	Limitation
1[c]	wherein the gratuity sync client application on each client business system is configured to
1[c.1]	(i) extract transaction information and employee information from the client business system and
1[c.2]	(ii) to initiate transfer of the extracted information to the gratuity management system;

[0110] Loading of information to the present invention from an IS may be performed via execution of an interface process and queries (e.g., database or SQL queries) to the IS.

* * *

The Aloha file folder may be local or remote to the server, although if such file folder is remotely located, it must be configured as a mapped drive on the local server. For example, in one aspect of the present invention, the file folder is located remotely and it is configured as a mapped drive on the local server via an Internet connection such as those discussed above in greater detail with respect to FIG. 3. Once the exemplary GrataSoft embodiment of the present invention has been pointed to the correct file location, it may simply query the database information as is known in the art. However, alternate methods of downloading or transferring data such as sales data may be substituted without departing from the scope of the present invention. For example, in one

Ex. 1004 (Marshall), ¶ 110

142. Marshall discloses that the Aloha POS (i.e., the “gratuity sync application”) “initiate[s] transfer of the extracted information to the gratuity management system” by directing the GrataSoft system to the proper file location to download the necessary information over the Internet:

Ex. 1002 (Decl.), ¶ 142

See also Paper 1 at 19-20; Ex. 1002 (Decl.), ¶¶ 138, 140-43

Marshall renders obvious claim 1[d]

Claim	Limitation
1[d]	wherein the gratuity management system is a cloud computing system remote from the plurality of client business systems and configured to
1[d.1]	(i) receive the extracted transaction information and employee information from the plurality of client business systems and
1[d.2]	(ii) to store the received extracted information in the database; and

[0102] Connection of system 300 to Internet 318 allows the systems and methods of the present invention to be implemented in a Web-based manner. For example, the systems and methods of the present invention may be executed via a Web server or similar apparatus that interacts with one or more users via an Internet connection such as Internet connection 316 between the Web server and the user's local processing device or dumb terminal (e.g., a thin client, a thick client, etc.). Such web-based implementations may be programmed via a web programming tool such as the FUNCKy.com programming tool or the like. Such interaction may include receiving input from a user and/or providing output (e.g., reports) to a user via the Internet connection.

[0103] In some aspects of the present invention, the Web-based systems and methods of the present invention may be accessed via any Web browser in communication with the Internet regardless of whether such Web browser resides on a non-portable device (e.g., a desktop PC) or a portable device such as a laptop, PDA, Smartphone, cellular phone, or the like. This capability allows users with the required user rights to access the systems and methods of the present

invention at the business establishment, from home, or on the go (i.e., via a portable device). This feature may allow users of an individualized system (i.e., systems intended for personal use by a single employee), as described in further detail below, to download information from an IS or a business establishment's tip and gratuity management system to his or her home computer. Also, in embodiments of the present invention in which electronic and/or digital signatures are captured, a Web-based system allows a signature to be requested via electronic mail. Furthermore, Web-based systems facilitate integration of the systems and methods of the present invention with all Web-based IS, thereby increasing the likelihood of data entry via download from an IS, which minimizes the need for manual data entry. Web-based systems further facilitate multi-site deployment, maintenance, support, upgrades, enhancements to, centralized administration of, storage, and backup of the systems of the present invention.

[0104] Furthermore, web-based individualized systems facilitate upload of employee information such as declared

Marshall renders obvious claim 1[d]

Claim	Limitation
1[d]	wherein the gratuity management system is a cloud computing system remote from the plurality of client business systems and configured to
1[d.1]	(i) receive the extracted transaction information and employee information from the plurality of client business systems and
1[d.2]	(ii) to store the received extracted information in the database; and

[0110] Loading of information to the present invention from an IS may be performed via execution of an interface process and queries (e.g., database or SQL queries) to the IS.

* * *

3. Once the exemplary GrataSoft embodiment of the present invention has been pointed to the correct file location, it may simply query the database information as is known in the art. However, alternate methods of downloading or transferring data such as sales data may be substituted without departing from the scope of the present invention. For example, in one aspect of the present invention, mapping is performed via Web mapping utilizing a Universal Naming Convention (“UNC”) server and data transfer is performed via uploading and downloading via HyperText Transfer Protocol (“HTTP”), Extensible Markup Language (“XML”), and/or HTML as is known in the art.

Ex. 1004 (Marshall), ¶ 110

148. The above portion from Marshall indicates to a POSITA that system 300, on which the GrataSoft system operates, can be a cloud computing system because the communication protocols described by Marshall (HTTP, XML, HTML) support a cloud-based infrastructure—and did so before the September 2012 priority date of the ’050 patent. In addition, Marshall expressly contemplates support for multiple “employers” (i.e., restaurants or “clients,” as claimed in the ’050 patent). (*Id.*, Fig. 27, ¶¶ 385–93.) In addition, cloud computing solutions were well known and commonly used in the art by 2012, as discussed in Section IV.C above.

Ex. 1002 (Decl.), ¶ 148

See also Paper 1 at 21–22; Ex. 1002 (Decl.), ¶¶ 145–46, 148–52

Marshall renders obvious claim 1[d]

Claim	Limitation
1[d]	wherein the gratuity management system is a cloud computing system remote from the plurality of client business systems and configured to
1[d.1]	(i) receive the extracted transaction information and employee information from the plurality of client business systems and
1[d.2]	(ii) to store the received extracted information in the database; and

Regarding claim 6, a processor is disclosed. With respect to the processor comprising a "cloud computing system," Marshall shows that it is well known for processing resources/processors/servers to be embodied as/include: a single system, a multi system (co- located or distributed), cloud computing system, or a combination of the above [See para. 0025]. Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have substituted reading a server comprising a cloud computing system for the disclosed (presumably) single system, as both systems are well known in the art for providing processing. Moreover, persons of ordinary skill in the art appreciated that such substitution would have resulted in the predictable result of providing data/information processing.

Marshall renders obvious claim 1[d]

Claim

Limitation

1[d]

wherein the gratuity management system is a cloud computing system remote from the plurality of client business systems and configured to

So what -- as of September 2012, aside from having somebody else host the servers, what are other possible benefits that would have been understood by a person of ordinary skill in the art of using a cloud-based implementation of a POS system?

A. Well, you're -- you're off-loading -- like I said before, you're off-loading the maintenance and having to actually physically run the servers and keep them up and running and, you know, the power running to them and all that sort of stuff, so that's the burden taken off you. That's one thing.

Ex. 1034 (Cullimore Dep.) at 33:1-15

Q. Are there any other benefits of a cloud-based implementation that a person of ordinary skill in the art would have understood as of September 2012?

A. It certainly could be implementation development benefits, you know, this is something I've obviously personally been very involved in over the years and decades of developing such software. And there can be significant challenges in developing server software, which can be alleviated by using cloud systems because companies like Microsoft and Amazon have tried to make it easier to develop these sort of server systems.

Ex. 1034 (Cullimore Dep.) at 34:2-16

See also Paper 1 at 21–22; Ex. 1002 (Decl.), ¶¶ 145-46, 148-52

Marshall renders obvious claim 1[d]

Claim	Limitation
-------	------------

1[d]	wherein the gratuity management system is a cloud computing system remote from the plurality of client business systems and configured to
------	---

Q. Okay. So if a person of ordinary skill in the art implemented Marshall in the cloud, is one benefit of such an implementation that you have just one Marshall system in the cloud as opposed to having a separate system at each and every client business system?

A. Yes.

Q. And in that implementation, an improvement to Marshall's system in the cloud means that each of the client business systems is -- immediately obtained the advantage of that improvement without further software distribution; is that correct?

A. Yes. Well, that's the theory behind cloud-based software.

Ex. 1034 (Cullimore Dep.) at 60:21-61:10, 61:12-13

See also Paper 1 at 21–22; Ex. 1002 (Decl.), ¶¶ 145-46, 148-52

Marshall renders obvious claim 1[d]

Claim	Limitation
1[d]	wherein the gratuity management system is a cloud computing system remote from the plurality of client business systems and configured to
1[d.1]	(i) receive the extracted transaction information and employee information from the plurality of client business systems and
1[d.2]	(ii) to store the received extracted information in the database; and

[0400] Although the present invention has been discussed herein as an independent system capable of interfacing to third-party systems such as POS systems, time and attendance systems, etc., the systems and methods of the present invention may also be implemented as an integral component of such systems, or the functions and features of such systems may be added to the systems and methods of the present invention, without departing from the scope hereof.

Ex. 1004 (Marshall), ¶ 400

See also Paper 1 at 21–22; Ex. 1002 (Decl.), ¶¶ 145-46, 148-52

Marshall discloses or renders obvious a server that is remote from client business systems

- ✗ Patent Owner argues that “Marshall nowhere teaches or suggests a cloud-based server as part of any remote gratuity management system, that is separate and distinct from any client point-of-sale (POS) server”
Paper 14 at 31.

- ✓ **Patent Owner ignores Marshall’s disclosure of the Aloha POS system**, which can be remote from GrataSoft.
Ex. 1004 (Marshall), ¶¶ 108, 110;
Ex. 1002 (Decl.), ¶¶ 131-34;
Paper 16 at 9-10.
- ✓ **Patent Owner does not mention the Aloha POS** a single time in its Response or Sur-Reply.

Marshall discloses or renders obvious a cloud-based gratuity management system

- ✗ Focusing solely on the “simplistic” embodiment of Figure 3, Patent Owner argues that Marshall is limited to only client-side tip calculations.
Paper 14 at 19-26.

- **Patent Owner ignores other disclosures of Marshall:**

- ✓ Marshall discloses using HTTP, XML, and HTML, each of which were used in cloud-based infrastructures in 2012. Paper 1 at 21, Ex. 1002 (Decl.), ¶¶ 147-48; Paper 16 at 5.
- ✓ Marshall’s system may be used in a “multi-employer” setting, where it would have been obvious to a POSITA to implement the system in a centralized manner (e.g., in the cloud). Ex. 1002 (Decl.), ¶¶ 113, 135; Paper 16 at 6.
- ✓ Using a centralized architecture (e.g., in the cloud) was well-known in 2012. It would have been obvious to a POSITA to implement Marshall in the cloud. Paper 16 at 5-6.

Marshall renders obvious claim 1[d]

Claim	Limitation
1[d]	wherein the gratuity management system is a cloud computing system remote from the plurality of client business systems and configured to
1[d.1]	(i) receive the extracted transaction information and employee information from the plurality of client business systems and
1[d.2]	(ii) to store the received extracted information in the database; and

[0232] After header 1202 has been printed, process 1100 proceeds to 1114 at which process 1100 obtains the tip and/or gratuity data received for the employee associated with employeeID[a] and the selected date range. This data is

* * *

Also, in embodiments of the present invention that are associated with an IS, the non-cash tip and/or gratuity data may be obtained directly from the IS system such that the user is not required to enter such data. In some embodiments of the present invention, the data received from the IS may be independently stored as a data file of the exemplary GrataSoft system. However, depending upon the interfaced system, if any, cash tip and/or gratuity data may still be entered manually via a process such as process 500. Process 1100 then proceeds to 1116.

Ex. 1004 (Marshall), ¶ 232

151. As discussed for sub-element 1[c](ii) above, Marshall discloses that, once the information from the client business system are extracted and saved into appropriate file structures, they are **uploaded** to the GrataSoft system. (See ¶¶ 141–44, *supra*, for a discussion on Marshall (Ex. 1004, ¶ 109).) Accordingly, Marshall discloses or renders obvious “receive the extracted transaction information and employee information from the plurality of client business systems.”

Ex. 1002 (Decl.), ¶ 151

See also Paper 1 at 21-22; Ex. 1002 (Decl.), ¶¶ 145-46, 148-52

Marshall renders obvious claim 1[e]

Claim	Limitation
1[e]	wherein the gratuity management system is further configured to
1[e.1]	(i) execute, independently for each client, gratuity distribution rules for allocating gratuities among at least a portion of the employees and
1[e.2]	(ii) to determine a gratuity allocation based on at least the received extracted transaction information, the received extracted employee information, and the gratuity distribution rules and
1[e.3]	(iii) return the gratuity allocation to the gratuity sync client application of each respective client business system, without requiring the client business systems to execute the gratuity distribution rules.

[0142] Although FIG. 5B depicts one method of attributing tips in accordance with one embodiment of the present invention, any reasonable method may be substituted without departing from the scope of the present invention. For example, in some embodiments, tips are attributed to each employee based upon the number of hours worked by each employee divided by the total number of hours worked by all employees during a particular shift, date, etc. In other embodiments, tips are attributed to each employee based upon the total sales of each employee divided by the total sales of all employees for a particular shift, date, etc. Or, in

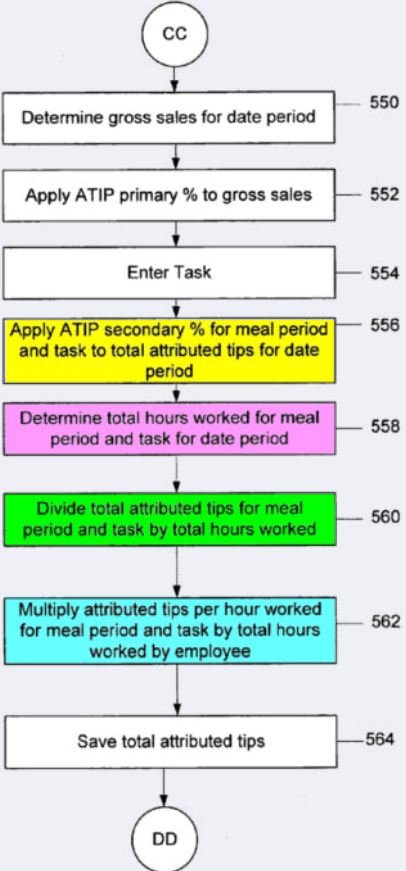
yet other embodiments, tips are attributed to a first subset of employees (e.g., servers) based upon a first method (e.g., hours worked by the employee versus hours worked by all employees) and tips are attributed to a second subset of employees (e.g., bartenders) based upon a second method (e.g., sales of each employee versus sales of all employees). That is, a combination of attribution methods may be used for different subsets of employees. Although the example provided herein includes two subsets, any number of subsets and any number of methods may be used without departing from the scope of the present invention.

Ex. 1004 (Marshall), ¶ 142

See also Paper 1 at 22-28; Ex. 1004 at Figs. 5A-5B, ¶¶ 80-83, 134, 138-39, 142, 224-26; Ex. 1002 (Decl.), ¶¶ 156, 157, 160-61, 163-64

Marshall renders obvious claim 1[e]

Claim	Limitation
1[e]	wherein the gratuity management system is further configured to
1[e.1]	(i) execute, independently for each client, gratuity distribution rules for allocating gratuities among at least a portion of the employees and



[0139] At 539, the user is prompted to determine whether she would like to attribute tips to the current employees for the current date and meal period. If yes, process 500 proceeds to 550 as depicted in FIG. 5B. At 550, process 500 determines the gross sales for the selected date. For example, such sales may be the gross sales for a particular day. Process 500 then proceeds to 552.

* * *

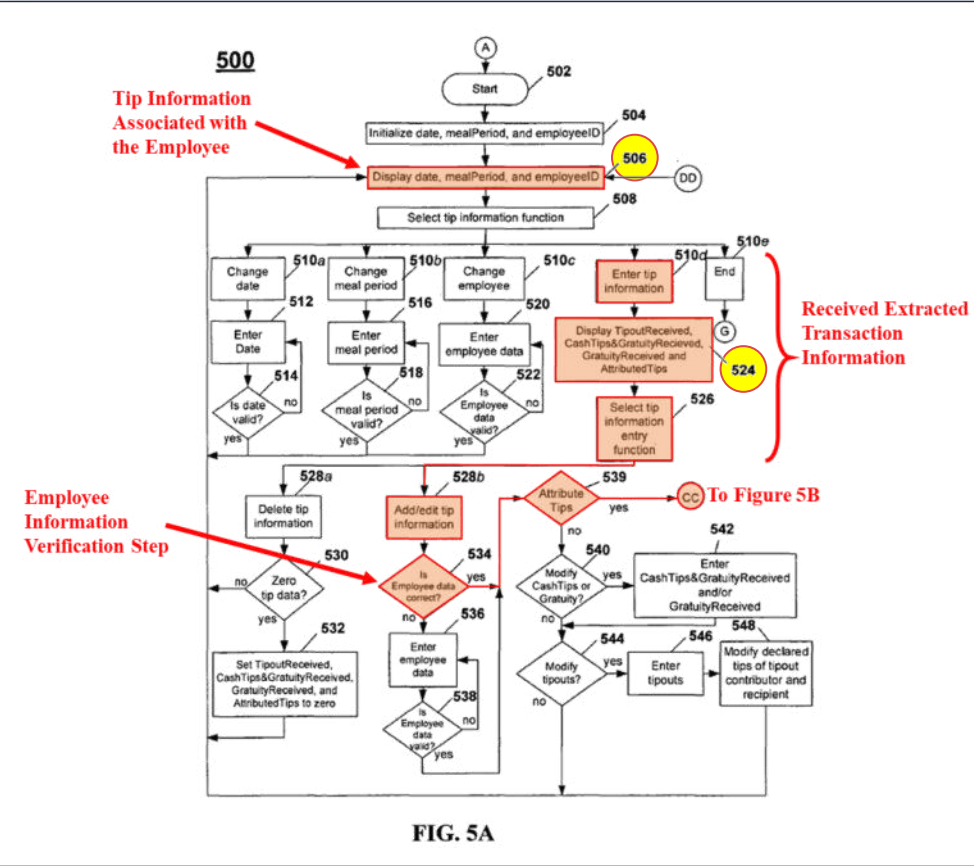
[0141] At 556, the ATIP secondary percentage associated with the current meal period and the current task is multiplied by the total attributed tips (as calculated at 552) for the current date. In the exemplary GrataSoft embodiment of the present invention, the ATIP secondary percentages are defined as a part of process 1000b as discussed in greater detail below with respect to FIG. 10C. Process 500 then proceeds to 558, at which the total hours worked for the current meal period, current task, and current date are determined. Next, at 560, the total tips attributed for the current meal period and the current task (as calculated at 556) is divided by the total hours worked (as determined at 558), thereby providing the total attributed tips per hour for the current meal period, for the current task during the current date. Process 500 then proceeds to 562, at which the total attributed tips per hour (as calculated at 560) is multiplied by the total number of hours worked by the current employee for the current meal period for the current task during the current date. Process 500 then proceeds to 564. at

Ex. 1004 (Marshall), ¶¶ 139, 141

See also Paper 1 at 22-28; Ex. 1004 at Figs. 5A-5B, ¶¶ 80-83, 134, 138-39, 142, 224-26; Ex. 1002 (Decl.), ¶¶ 156, 157, 160-61, 163-64

Marshall renders obvious claim 1[e]

Claim	Limitation
1[e]	wherein the gratuity management system is further configured to
1[e.1]	(i) execute, independently for each client, gratuity distribution rules for allocating gratuities among at least a portion of the employees and
1[e.2]	(ii) to determine a gratuity allocation based on at least the received extracted transaction information, the received extracted employee information, and the gratuity distribution rules and



160. At step 506 of Figure 5A, “the **tip information associated with the date, mealPeriod, and employeeID** variables are displayed to the user via a user interface ...” (*Id.*, ¶ 131.) “If at 508, the user has selected enter tip information function 510d, process 500 proceeds to 510d at which a process to enter tip information begins.” (*Id.*, ¶ 135.) At step 524, “the data associated with the TipoutReceived, CashTips&GratuityReceived, GratuityReceived, and AttributedTips variables are displayed to the user.” (*Id.*) A POSITA would have understood that at least the information provided at steps 506 and 527 correspond to “received extracted transaction information” and “received extracted employee information,” which, as explained earlier, have been uploaded to the GrataSoft system from the client business system.

Ex. 1002
¶ 161

See also Paper 1 at 22-28; Ex. 1004 at Figs. 5A-5B, ¶¶ 80-83, 134, 138-39, 142, 224-26; Ex. 1002 (Decl.), ¶¶ 156, 157, 160-61, 163-64

Marshall renders obvious claim 1[e]

Claim	Limitation
1[e]	wherein the gratuity management system is further configured to
1[e.1]	(i) execute, independently for each client, gratuity distribution rules for allocating gratuities among at least a portion of the employees and
1[e.2]	(ii) to determine a gratuity allocation based on at least the received extracted transaction information, the received extracted employee information, and the gratuity distribution rules and

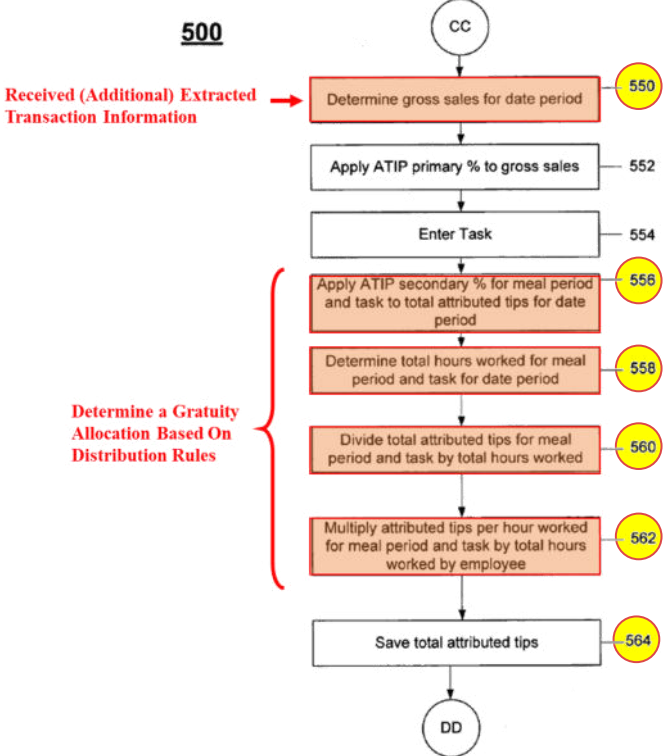


FIG. 5B

161. At step 526, the user may select a tip information entry function—e.g., whether to delete or add/edit the stored trip information. (*Id.*, ¶ 136.) If the user elects to proceed with the add/edit function at 528b, the GrataSoft system prompts the user to **verify the employee information** (e.g., the “the received extracted employee information”). (*Id.*, ¶ 138.) Once the employee information is verified, the process proceeds to step 539, which is a tip attribution step. (*Id.*) Subsequently, the process transitions to Figure 5B and step 550 where additional “extracted transaction information” is inputted, such as gross sales information for a predetermined period. (*Id.*, ¶ 139.) In the particular example of Figure 5B, the GrataSoft system uses a set of predetermined distribution rules along with a blend of transaction and employee information in steps 556–562 to “determine a gratuity allocation” at step 564. (*Id.*, ¶¶ 141–42.) As discussed above in connection to ¶ 142 of Marshall (*see* ¶ 156, *supra*), the distribution rules defined by steps 556–562 are by no means exhaustive, and the GrataSoft system may use a different combination of rules to arrive to a gratuity allocation at step 564. In view of the above, Marshall discloses or renders obvious sub-element 1[e](ii).

Ex. 1002
¶ 161

See also Paper 1 at 22-28; Ex. 1004 at Figs. 5A-5B, ¶¶ 80-83, 134, 138-39, 142, 224-26; Ex. 1002 (Decl.), ¶¶ 156, 157, 160-61, 163-64

Marshall renders obvious claim 1[e]

Claim	Limitation
1[e]	wherein the gratuity management system is further configured to
1[e.1]	(i) execute, independently for each client, gratuity distribution rules for allocating gratuities among at least a portion of the employees and
1[e.2]	(ii) to determine a gratuity allocation based on at least the received extracted transaction information, the received extracted employee information, and the gratuity distribution rules and
1[e.3]	(iii) return the gratuity allocation to the gratuity sync client application of each respective client business system, without requiring the client business systems to execute the gratuity distribution rules.

[0078] At 124, reports may be generated based upon the recorded information received from a plurality of service providers as well as any information received from any computerized payment processing system including, but not limited to, non-cash sales and non-cash tips and/or gratuities. The systems and methods of the present invention are designed to automatically generate desired reports with little or no input from a user. Numerous reports may be generated in a variety of formats including, but not limited to, activity summary reports, tip declaration problem reports, staff training history reports, and IRS reports such as TRAC statements, IRS Form 8027, and IRS Publication 1244 reports including IRS forms 4070A and 4070. In some embodiments

Ex. 1004 (Marshall), ¶ 78

[0103] In some aspects of the present invention, the Web-based systems and methods of the present invention may be accessed via any Web browser in communication with the Internet regardless of whether such Web browser resides on a non-portable device (e.g., a desktop PC) or a portable device such as a laptop, PDA, Smartphone, cellular phone, or the like. This capability allows users with the required user rights to access the systems and methods of the present invention at the business establishment, from home, or on the go (i.e., via a portable device). This feature may allow

Ex. 1004 (Marshall), ¶ 103; see also Ex. 1002 (Decl.), ¶¶ 156-57, 160-61, 163-64

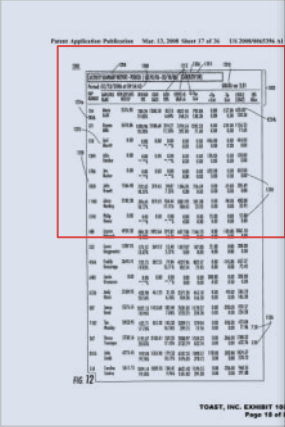
See also Paper 1 at 22-28; Ex. 1004 at Figs. 5A-5B, ¶¶ 80-83, 134, 138-39, 142, 224-26; Ex. 1002 (Decl.), ¶¶ 156, 157, 160-61, 163-64

Marshall renders obvious claim 1[e]

Claim	Limitation
1[e]	wherein the gratuity management system is further configured to
1[e.1]	(i) execute, independently for each client, gratuity distribution rules for all
1[e.2]	(ii) to determine a gratuity allocation based on at least the received extra distribution rules and
1[e.3]	(iii) return the gratuity allocation to the gratuity sync client application of e the gratuity distribution rules.

Return the gratuity allocation to the gratuity sync client application of each respective client business system, without requiring the client business systems to execute the gratuity distribution rules:

Ex. 1004 (Marshall)
Fig. 12 (annotated)



1200

1204 1208 1212 1206 1214 1210

ACTIVITY SUMMARY REPORT - PERIOD: [02/05/06 - 02/18/06] [GRATUITY ON]

Printed: 02/23/2006 at 09:54:43 GRATA ver 3.01

1202

EMP NUMBER	EMPLOYEE NAME	NON CASH SALES WITH TIP	NON CASH TIPS	CASH SALES	CASH TIPS	GROSS s/s	Gr Tips	+Tip	-Tip	[DECL] [GRAT]	IRS Alloc
1224a	154 TRDA	3576.90	708.24 19.80%	1260.50	83.76 6.64%	4837.40 768.35	792.00 138.30	0.00 0.00	-157.00 0.00	635.00* 138.30	
1222	171 Donnie Mills	5610.86	1020.96 18.20%	2188.68	274.27 12.53%	7799.54 397.80	1295.23 71.60	0.00 0.00	-139.00 0.00	1156.23 71.60	
	518 Earl Merritt	0.00	0.00 ** ***%	0.00	0.00 ** ***%	0.00 0.00	0.00 0.00	416.00 0.00	0.00 0.00	416.00 0.00	
1220	1399 Adin Hatcher	0.00	0.00 ** ***%	0.00	0.00 ** ***%	0.00 0.00	0.00 0.00	130.00 0.00	0.00 0.00	130.00 0.00	
	1786 Jen Rucker	0.00	0.00 ** ***%	0.00	0.00 ** ***%	0.00 0.00	0.00 0.00	652.00 0.00	0.00 0.00	652.00 0.00	
	1830 John Prewitt	1266.40	232.62 18.37%	319.65	24.07 7.53%	1586.05 0.00	256.69 0.00	0.00 0.00	-55.00 0.00	201.69 0.00	
	1 940 Adam Harding	2182.50	396.64 18.17%	819.45	104.44 12.75%	3001.95 188.45	501.08 33.92	0.00 0.00	-98.00 0.00	403.08 33.92	
	3140 Philip Howse	0.00	0.00 ** ***%	0.00	0.00 ** ***%	0.00 0.00	0.00 0.00	55.00 0.00	0.00 0.00	55.00 0.00	
	488 Lauren Polascak	4924.20	886.28 18.00%	1893.66	279.82 14.78	6817.86 0.00	1166.10 0.00	0.00 0.00	-105.00 0.00	1061.10 0.00	

1224b 1218

See also Paper 1 at 22-28; Ex. 1004 at Figs. 5A-5B, ¶¶ 80-83, 134, 138-39, 142, 224-26; Ex. 1002 (Decl.), ¶¶ 156, 157, 160-61, 163-64

Marshall renders obvious claim 2

Claim

Limitation

2

The system of claim 1, wherein the gratuity sync client is further configured to format the extracted transaction and employee information into an XML file before communicating the extracted information to the gratuity management server.

[0110] Loading of information to the present invention from an IS may be performed via execution of an interface process and queries (e.g., database or SQL queries) to the IS. This interface process is designed to read or query the information contained in the .DBF files or the like. In some embodiments of the present invention, such queries are written using software such as dBase Plus to provide Microsoft® Windows® compatibility as well as compatibility with a number of files types including, but not limited to, SQL server, Sybase, Oracle, Microsoft Access, etc. Access to the data contained therein is created by pointing the exemplary GrataSoft embodiment of the present invention to the IS' file folder, which is typically a distinct file folder from that containing the GrataSoft data files, which is stored on the Aloha server (e.g., a processing unit such as processing unit 302). In a typical embodiment, the GrataSoft software will be co-located on such Aloha server, or processing unit. However, such embodiments are not required.

The Aloha file folder may be local or remote to the server, although if such file folder is remotely located, it must be configured as a mapped drive on the local server. For example, in one aspect of the present invention, the file folder is located remotely and it is configured as a mapped drive on the local server via an Internet connection such as those discussed above in greater detail with respect to FIG. 3. Once the exemplary GrataSoft embodiment of the present invention has been pointed to the correct file location, it may simply query the database information as is known in the art. However, alternate methods of downloading or transferring data such as sales data may be substituted without departing from the scope of the present invention. For example, in one aspect of the present invention, mapping is performed via Web mapping utilizing a Universal Naming Convention ("UNC") server and data transfer is performed via uploading and downloading via HyperText Transfer Protocol ("HTTP"), Extensible Markup Language ("XML"), and/or HTML as is known in the art.

Marshall renders obvious claim 3

Claim	Limitation
-------	------------

3	The system of claim 1, wherein the gratuity sync client application is installed on the point of sale server of the respective client business system.
---	--

[0108] In our exemplary embodiment, one such IS is an Aloha POS in the form of software, which is executed by the same processing unit (e.g., processing unit 302) that executes the present invention. The Aloha POS saves data in .DBF, or dBase, file structures. This data is transactional data that is stored in a small set of tables. For example, payments may be stored in a first PAYMENT.DBF file, item sales may be stored in a second ITEMSALES.DBF file, and staff time may be stored in a third STAFFTIME.DBF file. The Aloha POS also incorporates .DBF files for configuration files such as files containing task codes, rates, identification information, and employee information such as name, address, social security number, etc.

Ex. 1004 (Marshall), ¶¶ 108-09;
see also Ex. 1002 (Decl.), ¶ 172)

[0109] When a POS or similar type of system is interfaced to a system or process of the present invention such as the exemplary GrataSoft embodiment, employee information may be loaded directly from .DBF or similar files into the present invention, which avoids the need for re-entering employee information that has already been entered in the POS system. Similarly, job codes may be loaded directly from such systems to identify data such as clock in time, clock out time, hourly wage, total hours worked, task worked, etc. Additionally, non-cash sales, cash sales, gratuities, etc. may be loaded directly from such systems to identify and calculate gross sales information. Such loading ensures that the same information is present on both systems. Although specific items of information have been identified for transfer from the Aloha POS system to the present invention, the systems and methods of the present invention may be programmed to load any information available in the IS, regardless of whether the IS is an Aloha POS system, another brand of POS system, or a non-POS system, without departing from the scope of the present invention. Similarly, information may be loaded from .DBF or other types of files using similar methods.

See also Paper 1 at 28-29; Ex. 1002 (Decl.), ¶¶ 171-72

Marshall renders obvious independent claim 8

Element 8[a] ← Elements of claim 1

a payment management computer system

having a server and a database and being accessible by a plurality of clients, the server being configurable by each client of the plurality of clients via a web portal to execute payment distribution rules independently on a client-by-client basis; and

1[a]: a gratuity management system, comprising:

1[a.1]: a server coupled to a computer network and accessible by a plurality of clients, the server being configurable to independently execute gratuity distribution rules on a client-by-client basis; and

1[a.2]: a database, accessible by the server

Element 8[b] ← Element 1[b]

the payment management computer system

8[b.1]: at least one point of sale server; and

8[b.2]: an interface component installed on the respective client business system;

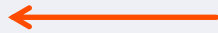
1[b]: the server of the gratuity management system

1[b.1]: at least one point of sale server; and

1[b.2]: a gratuity sync client application installed on the respective client business system;

Marshall renders obvious independent claim 8

Element 8[c]



Element 1[c]

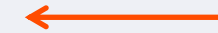
wherein the interface component on each client business system is configured to

- i. extract at least one of transaction information and employee information from the client business system and
- ii. to initiate transfer of the extracted information to the payment management computer system;

wherein the gratuity sync client application on each client business system is configured to

- i. extract transaction information and employee information from the client business system and
- ii. to initiate transfer of the extracted information to the gratuity management system;

Element 8[d]



Element 1[d]

wherein the payment management computer system is a cloud computing system remote from the plurality of client business systems and configured to

- i. receive the extracted information from the plurality of client business systems and
- ii. to store the received extracted information in the database; and

wherein the gratuity management system is a cloud computing system remote from the plurality of client business systems and configured to

- i. receive the extracted transaction information and employee information from the plurality of client business systems and
- ii. to store the received extracted information in the database; and

See also Paper 1 at 32-34; Ex. 1002 (Decl.), ¶¶ 192-96

Ground 2:
Obviousness in View of
Marshall and Webb

Claims 4–7, 9, 11–13

Marshall, alone or with Webb, renders obvious claims 4 and 11

Claim	Limitation
4	The system of claim 1, wherein the respective client business system comprises additional devices which are connected to and accessible by the gratuity sync client application.
11	The system of claim 8, wherein the respective client business system comprises additional devices which are connected to and accessible by the point of sale server.

Ex. 1004
(Marshall),
¶ 69

[0069] At 104, one or more service providers begin his or her shift. In one aspect of the present invention, the start of the shift includes “clocking in” via an employee time clock, an interfaced system (“IS”), or the like. Interfaced systems may include, but are not limited to, point-of-sale (“POS”) systems, electronic cash register systems, timeclock programs, time and attendance systems, payroll processing systems, and other similar systems as are known in the art. Such systems record an employee’s starting and ending work hours for the purposes of calculating total hourly wages based upon the quantity of hours worked. Once the service provider has “clocked in”, the service provider’s shift begins and the service provider provides patrons with the desired services. In the exemplary restaurant embodiment of the present invention, service providers perform services such as taking meal orders, serving food and beverages, and the like. Such services also include processing of payments for goods and services, which payments are typically made via cash and/or non-cash methods such as credit cards, checks, house charges, and gift certificates.

In addition to the scheduling, timekeeping and payroll functions as described above, the system may of course also be operated in order to maintain or analyze financial data relating to sales with respect to either individual employees or stores, as described in more detail above. Much of the information recorded in (i.e. inputted to) the SALES FILE 60 and WAIT FILE 64 is of course collected from cash register records, service checks and other receipts or records. Optionally, much of this sales information may be acquired directly from the various cash registers 30 in the system, which as mentioned above may communicate with personal computer via an RS 232 interface. Cash registers 30 are preferably computer driven, and include record keeping functions, so that sales could be recorded by server number, and so that sales may be entered and broken down by category descriptions (i.e. food, wine, beer etc. . . .).

Ex. 1006
(Webb),
24:43-60

See also Paper 1 at 38-39; Ex. 1002 (Decl.), ¶¶ 215-19, 242-46

Marshall, alone or with Webb, renders obvious claims 5 and 12

Claim	Limitation
5	The system of claim 4, wherein at least one of the additional devices comprises a time and attendance server.
12	The system of claim 11, wherein at least one of the additional devices comprises a time and attendance server.

Ex. 1004
(Marshall),
¶ 69

[0069] At 104, one or more service providers begin his or her shift. In one aspect of the present invention, the start of the shift includes “clocking in” via an employee time clock, an interfaced system (“IS”), or the like. Interfaced systems may include, but are not limited to, point-of-sale (“POS”) systems, electronic cash register systems, timeclock programs, time and attendance systems, payroll processing systems, and other similar systems as are known in the art. Such systems record an employee’s starting and ending work hours for the purposes of calculating total hourly wages based upon the quantity of hours worked. Once the service provider has “clocked in”, the service provider’s shift begins and the service provider provides patrons with the desired services. In the exemplary restaurant embodiment of the present invention, service providers perform services such as taking meal orders, serving food and beverages, and the like. Such services also include processing of payments for goods and services, which payments are typically made via cash and/or non-cash methods such as credit cards, checks, house charges, and gift certificates.

SUMMARY OF THE INVENTION

The present invention provides a personal computer-ized time clock system wherein employee records, sales records, time records and scheduling records are maintained in a personal computer (preferably the IBM TM PC) and wherein a remote computerized time clock interfaced with the personal computer is utilized by employees for time-in and time-out transactions. Ac-

Ex. 1006 (Webb), 1:40-48

See also Paper 1 at 39-40; Ex. 1002 ¶¶ 221-24, 247-48

Marshall, alone or with Webb, renders obvious claims 6 and 13

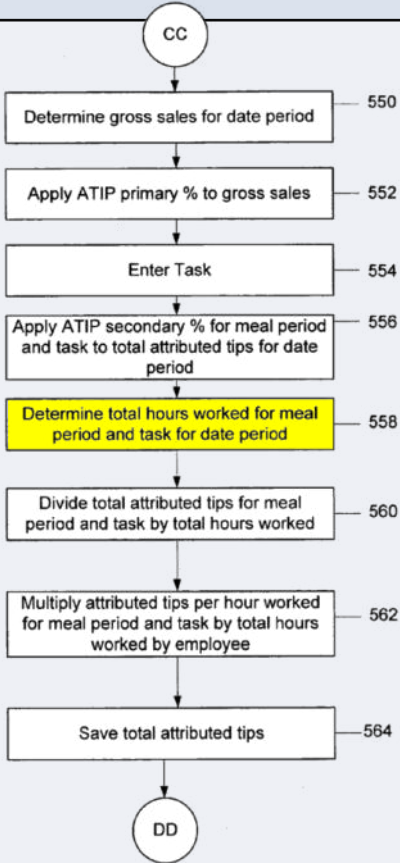
Claim	Limitation
6	The system of claim 5, wherein the employee information extracted from the respective client business system comprises employees' working hours.
13	The system of claim 12, wherein the employee information extracted from the respective client business system comprises employees' working hours

[0029] Briefly stated, in one aspect of the present invention, a method for managing tips is provided. This method includes receiving at least one first declared value of at least one of the group consisting of cash tips, non-cash tips, cash gratuities, non-cash gratuities, and combinations thereof from at least one employee, receiving at least one second declared value of tipouts from at least one employee, receiving at least one primary peripheral tip data selected from the group consisting of non-cash sales data, cash sales data, non-cash tips, credit card gratuities, data regarding hours worked by at least one employee, meal period data, task data, and combinations thereof, and generating at least one report analyzing at least one first declared value and at least one second declared value in relation to at least one primary peripheral tip data.

Ex. 1004 (Marshall) ¶ 29; see also id. ¶ 32.

[0141] At 556, the ATIP secondary percentage associated with the current meal period and the current task is multiplied by the total attributed tips (as calculated at 552) for the current date. In the exemplary GrataSoft embodiment of the present invention, the ATIP secondary percentages are defined as a part of process 1000b as discussed in greater detail below with respect to FIG. 10C. Process 500 then proceeds to 558, at which the total hours worked for the current meal period, current task, and current date are determined. Next, at 560, the total tips attributed for the current meal period and the current task (as calculated at 556) is divided by the total hours worked (as determined at 558), thereby providing the total attributed tips per hour for the current meal period, for the current task during the current date. Process 500 then proceeds to 562, at which the

Ex. 1004 (Marshall) ¶ 141, Figure 5B



See also Paper 1 at 40-41; Ex. 1002 (Decl.), ¶¶ 225-29, 249-50

Marshall, alone or with Webb, renders obvious claim 7

Claim Limitation

7

The system of claim 4, wherein at least one of the additional devices comprises a payroll system, and the gratuity sync client application communicates the returned gratuity allocations to the payroll system.

[0347] Turning next to FIG. 25, illustrated is a flow diagram of an exemplary embodiment of a process for exporting payroll data from a system such as the exemplary GrataSoft system. In some embodiments of the present invention in which a time and attendance system (e.g., a Datamatics TC-1 time and attendance system) is utilized to pay employees, the GrataSoft system includes a function such as payroll export function 430/ to transmit payroll data, as well as data regarding tips and/or gratuities to be paid as wages, to the time and attendance system. Such a function allows the systems and methods of the present invention to transmit tip and/or gratuities that are to be paid as wages, as discussed elsewhere herein, along with, or distinct from, transmission of each employee's hours worked. Such transmission allows the time and attendance software to seamlessly pay each employee for the hours worked as well as the tips and gratuities received that the employee and/or employer designate to be paid as wages. Furthermore, this function facilitates an employer's compliance with taxing authority regulations such as the IRS that require tips and/or gratuities to be paid as wages.

Ex. 1004 (Marshall) ¶ 347

The TIMECARD FILE 56 consists of a plurality of records each including the following information:

1.	EMPLOYEE NUMBER	_____
2.	WORK DATE	
3.	TIME IN	
4.	TIME OUT	
5.	EMPLOYEE JOB CODE	
6.	TOTAL TIPS	
7.	STATUS CODE	

Each of the records in TIMECARD FILE 56 corresponds to one time-in and time-out transaction for an employee. The date, time-in, time-out, total hours (automatically calculated), job code, tips and status code (vacation etc.) are recorded. As will be described in more detail below, the TIMECARD FILE 56 is automatically updated and maintained via the Transmit Time Clock Files function 412b, and contains a complete record of all timeclock transactions without reference to pay periods (i.e. week to week or bi-monthly pay periods).

PAY PERIOD FILE 58 consists of a plurality of records each identical with those in the TIMECARD FILE 56. However, the PAY PERIOD FILE 58 is purged of records at the end of each pay period so that it contains records of only those transactions which have occurred within the current pay period.

Ex. 1006
(Webb) at 8:11-38

See also Paper 1 at 41-42; Ex. 1002 (Decl.), ¶¶ 231-36

Marshall, alone or with Webb, renders obvious claim 9

Claim Limitation

9

The system of claim 8, wherein the respective client business system comprises a payroll system in communication with the interface component, such that the payroll system prepares payrolls without requiring the client business system to execute the payment distribution rules.

[0347] Turning next to FIG. 25, illustrated is a flow diagram of an exemplary embodiment of a process for exporting payroll data from a system such as the exemplary GrataSoft system. In some embodiments of the present invention in which a time and attendance system (e.g., a Datamatics TC-1 time and attendance system) is utilized to pay employees, the GrataSoft system includes a function such as payroll export function 430/ to transmit payroll data, as well as data regarding tips and/or gratuities to be paid as wages, to the time and attendance system. Such a function allows the systems and methods of the present invention to transmit tip and/or gratuities that are to be paid as wages, as discussed elsewhere herein, along with, or distinct from, transmission of each employee's hours worked. Such transmission allows the time and attendance software to seamlessly pay each employee for the hours worked as well as the tips and gratuities received that the employee and/or employer designate to be paid as wages. Furthermore, this function facilitates an employer's compliance with taxing authority regulations such as the IRS that require tips and/or gratuities to be paid as wages.

Ex. 1004 (Marshall) ¶ 347

The TIMECARD FILE 56 consists of a plurality of records each including the following information:

1.	EMPLOYEE NUMBER	_____
2.	WORK DATE	
3.	TIME IN	
4.	TIME OUT	
5.	EMPLOYEE JOB CODE	
6.	TOTAL TIPS	
7.	STATUS CODE	

Each of the records in TIMECARD FILE 56 corresponds to one time-in and time-out transaction for an employee. The date, time-in, time-out, total hours (automatically calculated), job code, tips and status code (vacation etc.) are recorded. As will be described in more detail below, the TIMECARD FILE 56 is automatically updated and maintained via the Transmit Time Clock Files function 412b, and contains a complete record of all timeclock transactions without reference to pay periods (i.e. week to week or bi-monthly pay periods).

PAY PERIOD FILE 58 consists of a plurality of records each identical with those in the TIMECARD FILE 56. However, the PAY PERIOD FILE 58 is purged of records at the end of each pay period so that it contains records of only those transactions which have occurred within the current pay period.

Ex. 1006
(Webb) at 8:11-38

See also Paper 1 at 42-43; Ex. 1002 (Decl.), ¶¶ 237-41

A POSITA would have been motivated to combine Marshall and Webb.



Disclose similar and compatible systems, e.g., both include local POS systems and time and attendance servers.



Because of system similarities, modifications to Marshall to implement Webb's teachings would be straightforward.



Adopting Marshall's and Webb's teachings in a cloud-based architecture is nothing more than the combination of known elements to yield predictable results.



Directed to same field of art: systems for tracking employee and sales information in the hospitality business.

Petitioner does not rely on Webb to “cure” the alleged cloud-based deficiencies of Marshall

✗ Patent Owner argues that “nothing in Webb provides any further motivation to re-configure Marshall to be a cloud-based system.”
Paper 18 at 7.

- ✓ **Petitioner does not rely on Webb to provide disclosure of a cloud-based system.** As already explained, Marshall itself discloses or renders obvious a cloud-based system.
- ✓ **Instead, Petitioner relies on Webb for additional limitations in the dependent claims.** Patent Owner provides no argument that Marshall, alone or in combination with Webb, renders obvious the additional limitations. Paper 14 at 41-42; Paper 18 at 7.

Ground 3:
Obviousness in View of
Phillips and Marshall

Claims 1–3, 8, 10

Ground 3: Phillips in view of Marshall

Claim	Limitation
1[pre]	A system, comprising:
1[a]	a gratuity management system, comprising
1[a.1]	a server coupled to a computer network and accessible by a plurality of clients, the server being configurable to independently execute gratuity distribution rules on a client-by-client basis; and
1[a.2]	a database, accessible by the server; and
1[b]	a plurality of client business systems in electronic communication with the server of the gratuity management system, each of the client business systems corresponding to one of the plurality of clients, each client business system comprising:
1[b.1]	at least one point of sale server; and
1[b.2]	a gratuity sync client application installed on the respective client business system;
1[c]	wherein the gratuity sync client application on each client business system is configured to
1[c.1]	(i) extract transaction information and employee information from the client business system and
1[c.2]	(ii) to initiate transfer of the extracted information to the gratuity management system;
1[d]	wherein the gratuity management system is a cloud computing system remote from the plurality of client business systems and configured to
1[d.1]	(i) receive the extracted transaction information and employee information from the plurality of client business systems and
1[d.2]	(ii) to store the received extracted information in the database; and
1[e]	wherein the gratuity management system is further configured to
1[e.1]	(i) execute, independently for each client, gratuity distribution rules for allocating gratuities among at least a portion of the employees and
1[e.2]	(ii) to determine a gratuity allocation based on at least the received extracted transaction information, the received extracted employee information, and the gratuity distribution rules and
1[e.3]	(iii) return the gratuity allocation to the gratuity sync client application of each respective client business system, without requiring the client business systems to execute the gratuity distribution rules.

Phillips in view of Marshall renders obvious claim 1[a]

Claim	Limitation
1[a]	a gratuity management system, comprising
1[a.1]	a server coupled to a computer network and accessible by a plurality of clients, the server being configurable to independently execute gratuity distribution rules on a client-by-client basis; and
1[a.2]	a database, accessible by the server; and

A gratuity management system:

(19)	United States	
(12)	Patent Application Publication	(10) Pub. No.: US 2014/0365322 A1
	Phillips	(43) Pub. Date: Dec. 11, 2014
(54)	GRATUITY PROCESSING SYSTEM APPARATUS AND RELATED METHODS	Publication Classification
(71)	Applicant: Andrew M. Phillips , Costa Mesa, CA (US)	(51) Int. Cl.
(72)	Inventor: Andrew M. Phillips , Costa Mesa, CA (US)	<i>G06Q 40/00</i> (2006.01)
		<i>G06Q 20/20</i> (2006.01)
		<i>G06Q 20/34</i> (2006.01)
		<i>G06Q 20/10</i> (2006.01)
		(52) U.S. Cl.

Ex. 1005 (Phillips), Title, Fig. 1

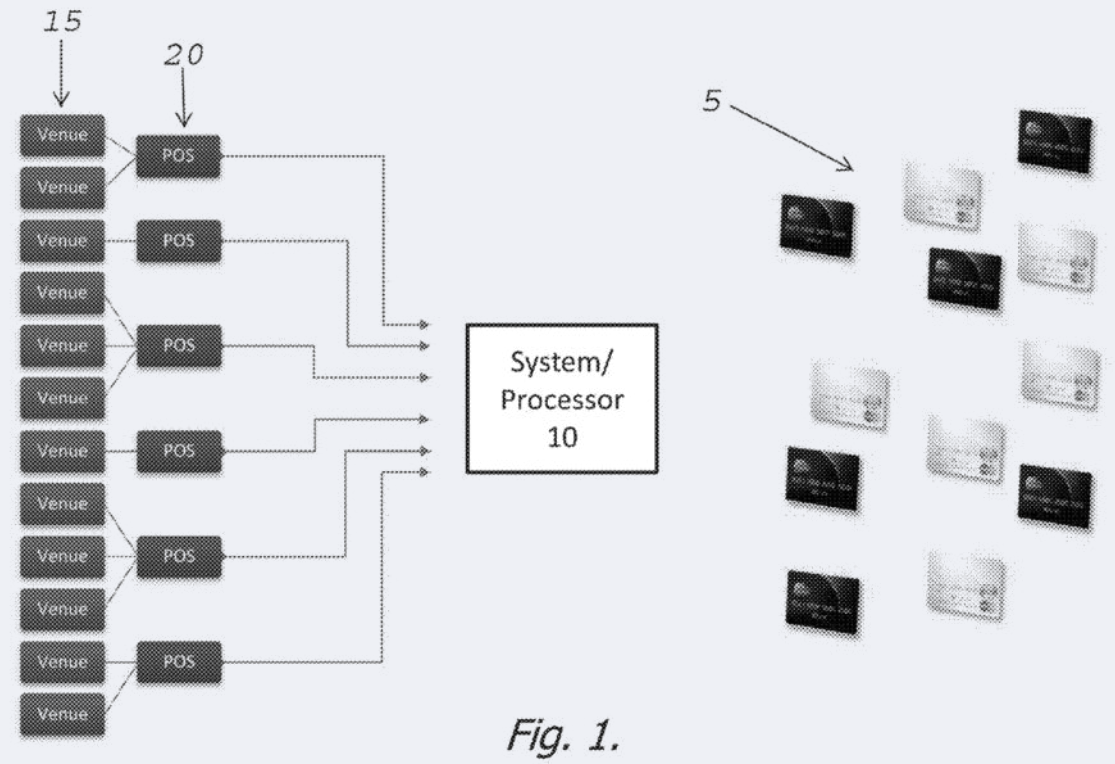


Fig. 1.

See also Paper 1 at 47; Ex. 1002 (Decl.), ¶ 268

Phillips in view of Marshall renders obvious claim 1[a]

Claim	Limitation
1[a]	a gratuity management system, comprising
1[a.1]	a server coupled to a computer network and accessible by a plurality of clients, the server being configurable to independently execute gratuity distribution rules on a client-by-client basis; and
1[a.2]	a database, accessible by the server; and

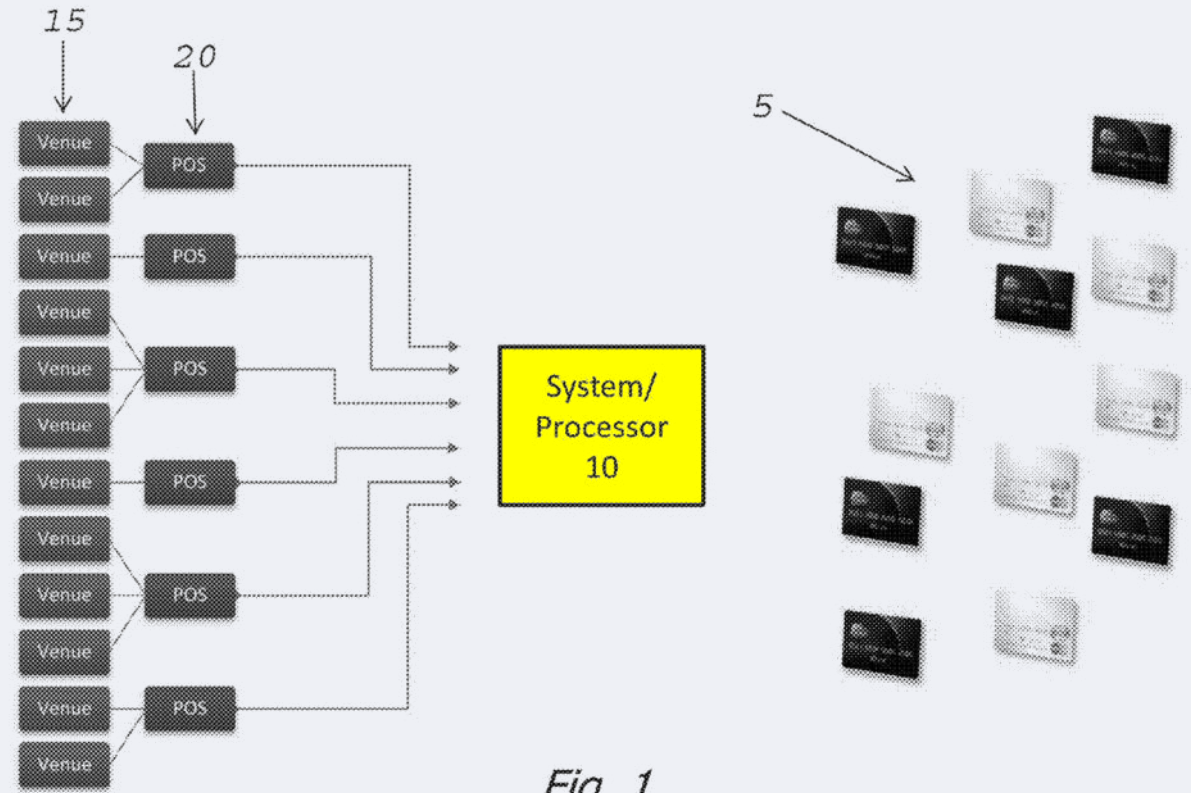


Fig. 1.

Ex. 1005 (Phillips), Fig. 1

See also Paper 1 at 48-49; Ex. 1002 (Decl.), ¶¶ 268-69

Phillips in view of Marshall renders obvious claim 1[a]

Claim	Limitation
1[a]	a gratuity management system, comprising
1[a.1]	a server coupled to a computer network and accessible by a plurality of clients, the server being configurable to independently execute gratuity distribution rules on a client-by-client basis; and
1[a.2]	a database, accessible by the server; and

[0034] FIGS. 2a and 2b illustrate one of the many processes for which the system of FIG. 1 can be used. As illustrated in FIG. 2a, at the end of the work shift (or at any other convenient or useful interval), the tip totals 25 or other information/data are uploaded from the POS system(s) 20 to a central processing system 10. As shown in FIG. 2b, upon receipt of

Ex. 1005 (Phillips), ¶ 34

268. Phillips discloses or renders obvious “a server coupled to a computer network and accessible by a plurality of clients.” For example, in Figures 1, 2a, and 2b of Phillips, there is disclosed a central processing system 10, which a POSITA

* * *

system 10.” (Ex. 1005, ¶ 34.) A POSITA would understand that uploading information from the POS systems to the central processing system 10 requires that all of the devices be coupled to a computer network. Accordingly, Phillips discloses “a server coupled to a computer network and accessible by a plurality of clients.”

Ex. 1002 (Decl.), ¶ 268

See also Paper 1 at 48-49; Ex. 1002 (Decl.), ¶¶ 268-69

Phillips in view of Marshall renders obvious claim 1[a]

Claim	Limitation
1[a]	a gratuity management system, comprising
1[a.1]	a server coupled to a computer network and accessible by a plurality of clients, the server being configurable to independently execute gratuity distribution rules on a client-by-client basis; and
1[a.2]	a database, accessible by the server; and

[0034] FIGS. 2a and 2b illustrate one of the many processes for which the system of FIG. 1 can be used. As illustrated in

* * *

“loaded” onto the card 5. In addition, tip-outs can also be automatically calculated and distributed to other employees at this time depending on location or corporate level business rules set within the system. As indicated above, preferably

[0068] Next, the system of the invention preferably calculates the tips owed to each member of each team/group, based on the rules and data that have been input. Certain embodiments can include other steps in these processes, such as providing a step where the tip payments can be adjusted (based on manager or server preference or other factors). At

Ex. 1005 (Phillips), ¶¶ 34, 68

269. Phillips also discloses or renders obvious “the server being configurable to independently execute gratuity distribution rules on a client-by-client basis.” For instance, Phillips discloses that “tip-outs can ... be automatically calculated and distributed to other employees at this time depending on location or corporate level business rules set within the system.” (Id.) In other words, each restaurant or client in Phillips may have its own gratuity distribution rules that vary from rules used by other clients. (Id.; see also id., ¶ 68 (“Next, the system of the invention preferably calculates the tips owed to each member of each team/group, based on the rules and data that have been input. Certain embodiments can include other steps in these processes, such as providing a step where the tip payments can be adjusted (based on manager or server preference or other factors).”).)

See also Paper 1 at 48-49; Ex. 1002 (Decl.), ¶¶ 268-69

Ex. 1002 (Decl.), ¶ 268

Phillips in view of Marshall renders obvious claim 1[a]

Claim	Limitation
1[a]	a gratuity management system, comprising
1[a.1]	a server coupled to a computer network and accessible by a plurality of clients, the server being configurable to independently execute gratuity distribution rules on a client-by-client basis; and
1[a.2]	a database, accessible by the server; and

[0034] FIGS. 2a and 2b illustrate one of the many processes for which the system of FIG. 1 can be used. As illustrated in FIG. 2a, at the end of the work shift (or at any other convenient or useful interval), the tip totals 25 or other information/data are uploaded from the POS system(s) 20 to a central processing system 10. As shown in FIG. 2b, upon receipt of that tip data 25, the central processor/system 10 preferably uses that information to either instantly “load” the appropriate tip amounts onto each relevant employee’s prepaid debit card 5 (or other similar prepaid/fundable/re-loadable card), or confirm or adjust tip amounts if necessary before being “loaded” onto the card 5. In addition, tip-outs can also be

Ex. 1005 (Phillips), ¶34

[0044] FIG. 11 shows how embodiments of the invention can provide extensive reporting and data extraction functionalities. In addition to allowing easy selection of criteria for data to be included in the report, embodiments can generate reports in separate windows, can export the data into multiple formats, etc., can distribute same via email or otherwise, and can have many other helpful functionalities. Saved/canned custom reports can also be scheduled to run in the future and automatically be distributed to the Message Center for the user to see when they log into the system. In preferred systems, reports can be run at the employee level and rolled up to the corporate level using a customizable hierarchy. For example, systems that utilize the invention preferably can include hierarchies for reporting at levels such as:

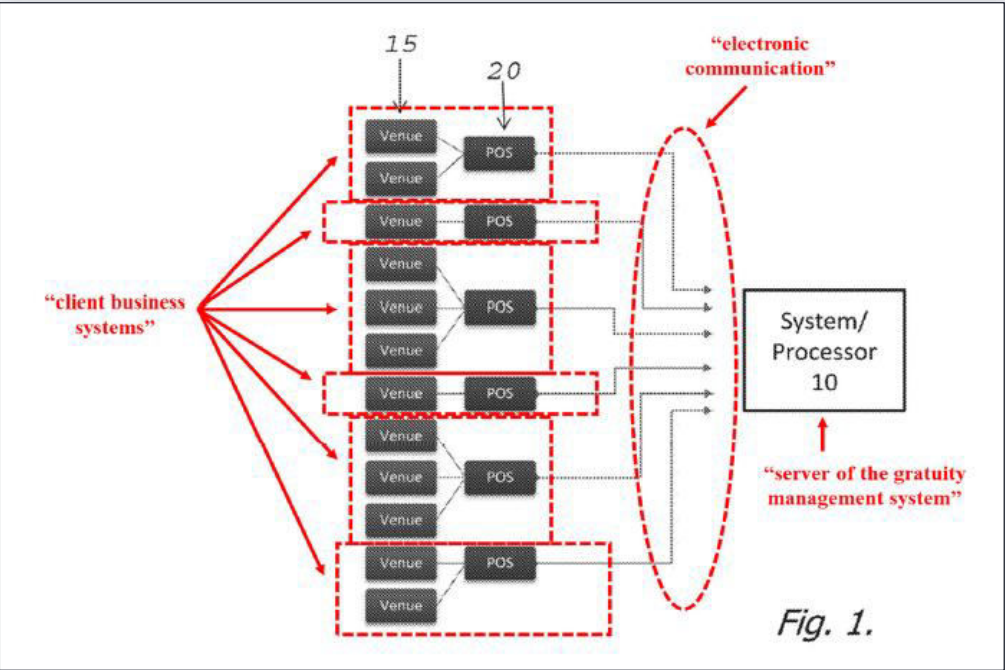
- [0045] Corporate
- [0046] Division
- [0047] Region
- [0048] Location
- [0049] Venue Type
- [0050] Employee

Ex. 1005 (Phillips), ¶ 44

See also Paper 1 at 49; Ex. 1002 (Decl.), ¶¶ 271-74

Phillips in view of Marshall renders obvious claim 1[b]

Claim	Limitation
1[b]	a plurality of client business systems in electronic communication with the server of the gratuity management system, each of the client business systems corresponding to one of the plurality of clients, each client business system comprising:
1[b.1]	at least one point of sale server; and
1[b.2]	a gratuity sync client application installed on the respective client business system;



Ex. 1005 (Phillips), Annotated Fig. 10

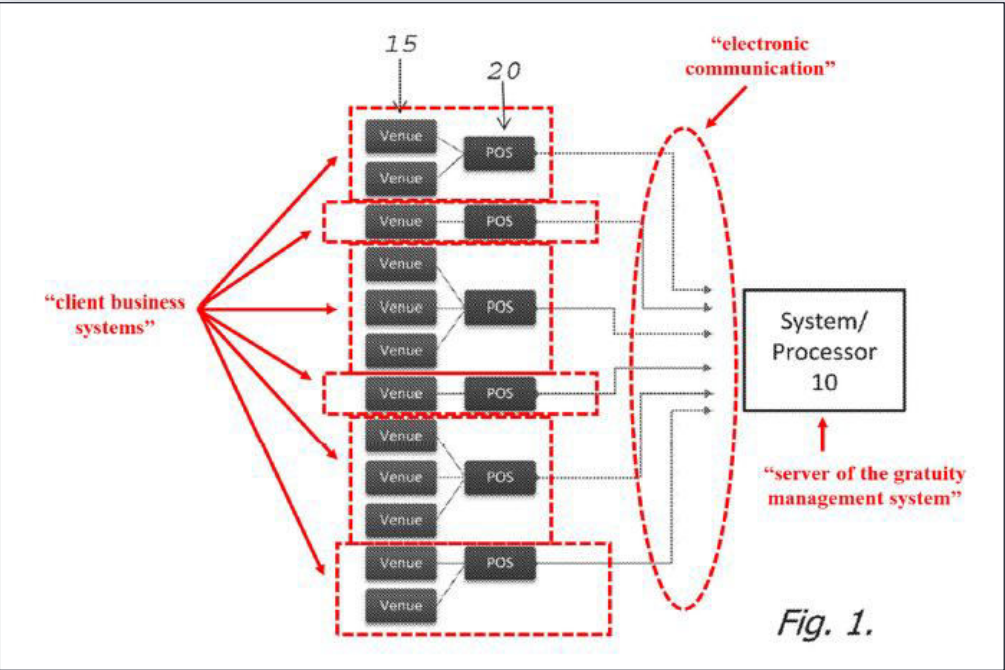
276. Phillips discloses “a plurality of client business systems in electronic communication with the server of the gratuity management system” in the form of multiple venues 15 being connected to a central processor 10 via POS systems 20. (See, e.g., Ex. 1005, Figs. 1, 2a, 2b.) A POSITA would have understood that each POS system 20 connected to one or more venues 15 forms a “client business system” “in electronic communication with the server of the gratuity management system,” as shown schematically in annotated Figure 1 below.

Ex. 1002 (Decl.), ¶ 276

See also Paper 1 at 50-51; Ex. 1002 (Decl.), ¶¶ 275-83

Phillips in view of Marshall renders obvious claim 1[b]

Claim	Limitation
1[b]	a plurality of client business systems in electronic communication with the server of the gratuity management system, each of the client business systems corresponding to one of the plurality of clients, each client business system comprising:
1[b.1]	at least one point of sale server; and
1[b.2]	a gratuity sync client application installed on the respective client business system;



Ex. 1005 (Phillips), Annotated Fig. 10

279. Phillips discloses that a venue 15 may have its own POS system 20, or multiple venues 15 may share a POS system 20 as shown in Figure 1 below.

* * *

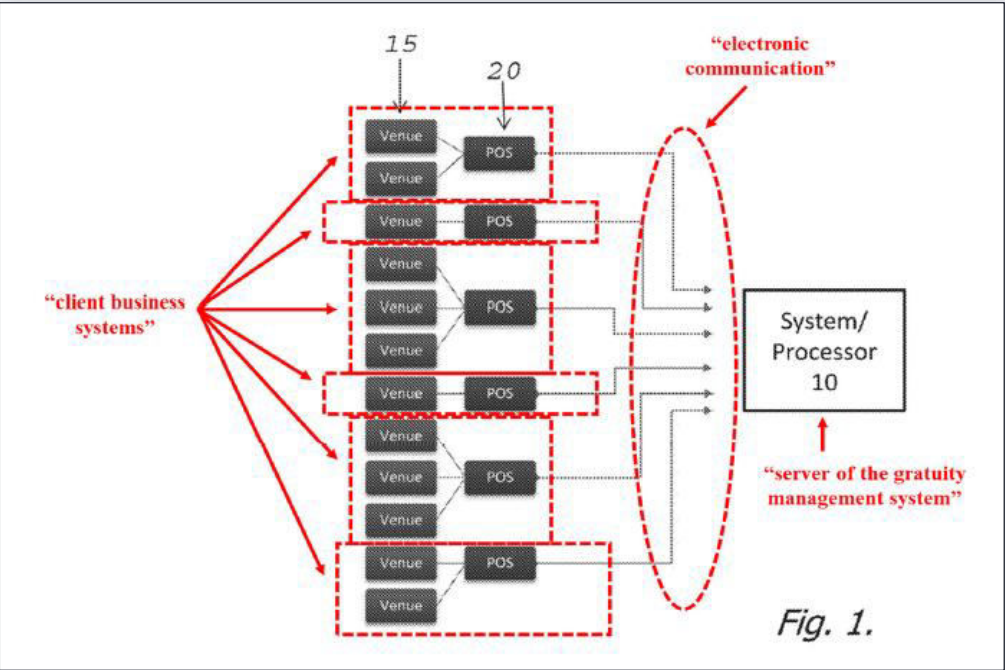
(Ex. 1005, Fig. 1.) Accordingly, a POSITA would have understood that the POS system 20, which is part of the client business system associated with one or more restaurants, is or corresponds to “at least one point of sale server.”

Ex. 1002 (Decl.), ¶ 279

See also Paper 1 at 50-51; Ex. 1002 (Decl.), ¶¶ 275-83

Phillips in view of Marshall renders obvious claim 1[b]

Claim	Limitation
1[b]	a plurality of client business systems in electronic communication with the server of the gratuity management system, each of the client business systems corresponding to one of the plurality of clients, each client business system comprising:
1[b.1]	at least one point of sale server; and
1[b.2]	a gratuity sync client application installed on the respective client business system;



Ex. 1005 (Phillips), Annotated Fig. 10

282. Phillips shows in Figure 1 that each client business system includes one or more venues 15 connected to a POS system 20. (Ex. 1005, Fig. 1.) Each POS system 20 collects information and communicates it to the central processor/system 10 (i.e., the “gratuity management system”). (*Id.*) In order for the POS system to perform its various functions, it has to contain software to perform those functions, which a POSITA would understand to be the “gratuity sync client application” installed at each client business system. And, as I discuss further below, the software of the POS systems 20 performs the functions recited in claim 1 as being performed by “gratuity sync client application.” (See ¶ 287, *infra.*)

Phillips in view of Marshall renders obvious claim 1[c]

Claim	Limitation
1[c]	wherein the gratuity sync client application on each client business system is configured to
1[c.1]	(i) extract transaction information and employee information from the client business system and
1[c.2]	(ii) to initiate transfer of the extracted information to the gratuity management system;

[0034] FIGS. 2a and 2b illustrate one of the many processes for which the system of FIG. 1 can be used. As illustrated in FIG. 2a, at the end of the work shift (or at any other convenient or useful interval), the tip totals 25 or other information/data are uploaded from the POS system(s) 20 to a central processing system 10. As shown in FIG. 2b, upon receipt of that tip data 25, the central processor/system 10 preferably uses that information to either instantly “load” the appropriate tip amounts onto each relevant employee’s prepaid debit card 5 (or other similar prepaid/fundable/re-loadable card), or confirm or adjust tip amounts if necessary before being “loaded” onto the card 5. In addition, tip-outs can also be

Ex. 1005 (Phillips), ¶ 34

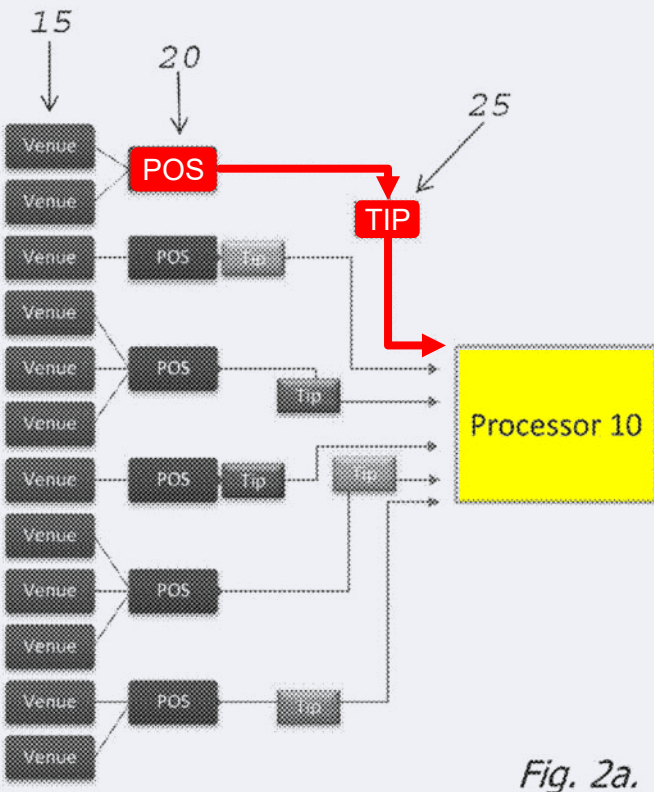


Fig. 2a.



Ex. 1005 (Phillips), Figs. 2a-2b

See also Paper 1 at 51-52; Ex. 1002 (Decl.), ¶¶ 284-90

Phillips in view of Marshall renders obvious claim 1[c]

Claim	Limitation
1[c]	wherein the gratuity sync client application on each client business system is configured to
1[c.1]	(i) extract transaction information and employee information from the client business system and
1[c.2]	(ii) to initiate transfer of the extracted information to the gratuity management system;

[0057] More generally, when adding an employee to the tip system, the apparatus and methods of the invention preferably provide options such as those listed here, to a manager or other person setting up the system:

[0058] Enter the employee’s information (such as their name and employee ID, commonly the same ID that the business uses in other of its systems).

[0059] If appropriate, mark the employee as a “downstream” or “tip-Out” employee (or otherwise classify them), and enter their percentage share of the relevant tips and any other relevant information.

[0060] Arrange for a prepaid debit card 5 to be given to the employee, to be used for delivery to the employee of their relevant tips. Depending on a number of factors, this can be done by ordering a new personalized card to be delivered to the employee, can be done as part of the inputting process by the person entering the information, or can be accomplished by giving the employee an existing “Instant Issue” prepaid card. An Instant Issue card can be a non-personalized card that an employer can keep on site for new employees or to use in place of lost cards.

Ex. 1005 (Phillips), ¶¶ 57-60

See also Paper 1 at 51-52; Ex. 1002 (Decl.), ¶¶ 284-90

Phillips in view of Marshall renders obvious claim 1[c]

Claim	Limitation
1[c]	wherein the gratuity sync client application on each client business system is configured to
1[c.1]	(i) extract transaction information and employee information from the client business system and
1[c.2]	(ii) to initiate transfer of the extracted information to the gratuity management system;

[0034] FIGS. 2a and 2b illustrate one of the many processes for which the system of FIG. 1 can be used. As illustrated in FIG. 2a, at the end of the work shift (or at any other convenient or useful interval), the tip totals 25 or other information/data are uploaded from the POS system(s) 20 to a central processing system 10. As shown in FIG. 2b, upon receipt of that tip data 25, the central processor/system 10 preferably uses that information to either instantly “load” the appropriate tip amounts onto each relevant employee’s prepaid debit card 5 (or other similar prepaid/fundable/re-loadable card), or confirm or adjust tip amounts if necessary before being “loaded” onto the card 5. In addition, tip-outs can also be

Ex. 1005 (Phillips), ¶ 34

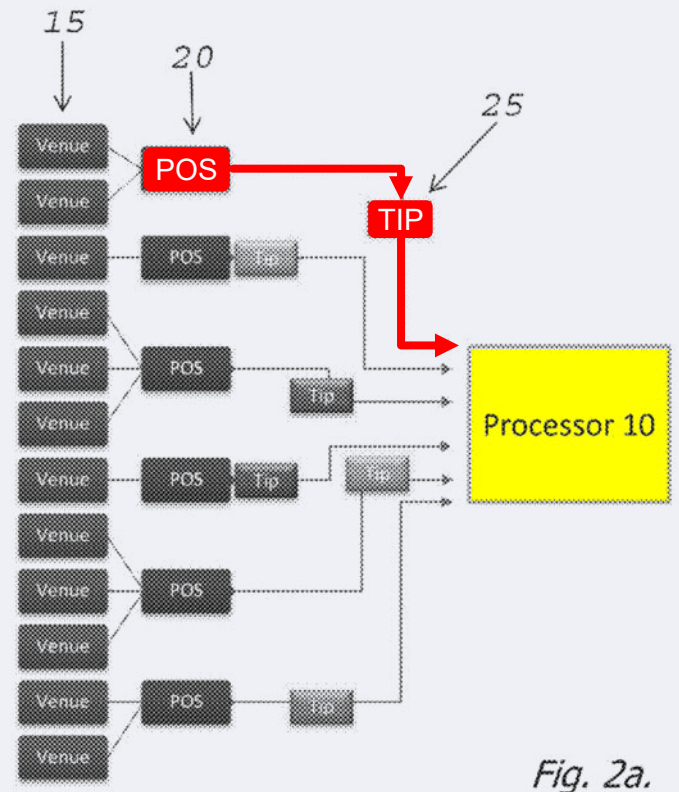


Fig. 2a.

Phillips in view of Marshall renders obvious claim 1[d]

Claim	Limitation
1[d]	wherein the gratuity management system is a cloud computing system remote from the plurality of client business systems and configured to
1[d.1]	(i) receive the extracted transaction information and employee information from the plurality of client business systems and
1[d.2]	(ii) to store the received extracted information in the database; and

293. It would have been obvious to a POSITA to implement the remote gratuity management system disclosed in Phillips as a “cloud computing system” because the benefits of cloud-based systems were well known in the art before the September 2012 priority date of the ’050 patent. (Section IV.C *supra*, discussing the Agilysys product offering included subscription-based and SaaS-based restaurant management services in 2011–2012.)

294. In fact, as I noted above, Marshall discloses or renders obvious using a cloud-based gratuity management system years before September 2012, including through its discussion of HTTP, XML, and HTML, all of which were well known to support a cloud-based infrastructure. (Ex. 1004, ¶ 110.) During the prosecution of

Ex. 1002 (Decl.),
¶¶ 293-94

See also Paper 1 at 53-54; Ex. 1002 (Decl.), ¶¶ 291-98

Phillips in view of Marshall renders obvious claim 1[d]

Claim	Limitation
1[d]	wherein the gratuity management system is a cloud computing system remote from the plurality of client business systems and configured to
1[d.1]	(i) receive the extracted transaction information and employee information from the plurality of client business systems and
1[d.2]	(ii) to store the received extracted information in the database; and

[0034] FIGS. 2a and 2b illustrate one of the many processes for which the system of FIG. 1 can be used. As illustrated in FIG. 2a, at the end of the work shift (or at any other convenient or useful interval), the tip totals 25 or other information/data are uploaded from the POS system(s) 20 to a central processing system 10. As shown in FIG. 2b, upon receipt of that tip data 25, the central processor/system 10 preferably uses that information to either instantly “load” the appropriate tip amounts onto each relevant employee’s prepaid debit card 5 (or other similar prepaid/fundable/re-loadable card), or confirm or adjust tip amounts if necessary before being “loaded” onto the card 5. In addition, tip-outs can also be

Ex. 1005 (Phillips), ¶34

295. As discussed for sub-element 1[c](ii) above, Phillips discloses that tips data and other information are uploaded from the POS systems (“client business systems”) to the central processor 10 (“gratuity management system”). (See, e.g., Ex. 1005, ¶ 34.) Accordingly, Phillips discloses or renders obvious “receive the extracted transaction information and employee information from the plurality of client business systems.”

Ex. 1002 (Decl.), ¶ 295

See also Paper 1 at 53-54; Ex. 1002 (Decl.), ¶¶ 291-98

Phillips in view of Marshall renders obvious claim 1[d]

Claim	Limitation
1[d]	wherein the gratuity management system is a cloud computing system remote from the plurality of client business systems and configured to
1[d.1]	(i) receive the extracted transaction information and employee information from the plurality of client business systems and
1[d.2]	(ii) to store the received extracted information in the database; and

296. As discussed in element 1[a.2], Phillips discloses or renders obvious that the central processor 10 (“gratuity management system”) receives and stores data in a database. (See, e.g., Section VI.D.2.d, *supra*.) And because central processor 10 of Phillips “receive[s] the extracted transaction information and employee information from the plurality of client business systems” (as discussed directly above), it follows that the extracted information is **stored** in the database(s) used by the central processor 10.

Ex. 1002 (Decl.), ¶ 296

See also Paper 1 at 53-54; Ex. 1002 (Decl.), ¶¶ 291-98

Phillips in view of Marshall renders obvious claim 1[e]

Claim	Limitation
1[e]	wherein the gratuity management system is further configured to
1[e.1]	(i) execute, independently for each client, gratuity distribution rules for allocating gratuities among at least a portion of the employees and
1[e.2]	(ii) to determine a gratuity allocation based on at least the received extracted transaction information, the received extracted employee information, and the gratuity distribution rules and
1[e.3]	(iii) return the gratuity allocation to the gratuity sync client application of each respective client business system, without requiring the client business systems to execute the gratuity distribution rules.

300. Regarding sub-element 1[e](i) (reciting “wherein the gratuity management system is further configured to execute, independently for each client, gratuity distribution rules for allocating gratuities among at least a portion of the employees”), Phillips discloses the central processor 10 is configured to “independently execute gratuity distribution rules on a client-by-client basis,” as discussed above in element 1[a.1].

Ex. 1002 (Decl.), ¶ 300

301. Additionally, Phillips discloses that its gratuity management can be performed among groups of employees. For example, Phillips states: “If the restaurant or other business does its tip-sharing within groups within a shift (rather than among all of the employees who work a given shift), the invention preferably includes parameters to input and track sub-groups of the employees, sometimes referred to as ‘teams’ that share tips with other members of their team.” (Ex. 1005, ¶ 66.) Accordingly, Phillips discloses that its system is configured to “execute ... gratuity distribution rules for allocating gratuities among at least a portion of the employees.”

Ex. 1002 (Decl.), ¶ 301

See also Paper 1 at 54-55; Ex. 1002 (Decl.), ¶¶ 299-306

Phillips in view of Marshall renders obvious claim 1[e]

Claim	Limitation
1[e]	wherein the gratuity management system is further configured to
1[e.1]	(i) execute, independently for each client, gratuity distribution rules for allocating gratuities among at least a portion of the employees and
1[e.2]	(ii) to determine a gratuity allocation based on at least the received extracted transaction information, the received extracted employee information, and the gratuity distribution rules and
1[e.3]	(iii) return the gratuity allocation to the gratuity sync client application of each respective client business system, without requiring the client business systems to execute the gratuity distribution rules.

302. Phillips also discloses or renders obvious sub-element 1[e](ii), which recites “wherein the gratuity management system is further configured to ... determine a gratuity allocation based on at least the received extracted transaction information, the received extracted employee information, and the gratuity distribution rules.” As discussed above with respect to element 1[d], the central processor 10 of Phillips receives and stores the extracted transaction and employee information that is communicated from various POS systems 20 on client business systems. (See Section VI.D.2.i., *supra*.) Once the extracted information is received by the central processor 10, central processor 10 “independently execute[s] gratuity distribution rules on a client-by-client basis,” as discussed in element 1[a.1].

Ex. 1002
(Decl.),
¶ 302

See also Paper 1 at 54-55; Ex. 1002 (Decl.), ¶¶ 299-306

Phillips in view of Marshall renders obvious claim 1[e]

Claim	Limitation
1[e]	wherein the gratuity management system is further configured to * * *
1[e.3]	(iii) return the gratuity allocation to the gratuity sync client application of each respective client business system, without requiring the client business systems to execute the gratuity distribution rules.

[0035] FIG. 3 is a chart representing another embodiment and/or aspect of the present inventions. Although a wide variety of other configurations and approaches can be used to practice the invention, FIG. 3 illustrates how the invention can automate at least portions of the back-office administration for funding the tips paid to the employees' prepaid debit cards 5. In FIG. 3, funds that will be used for tips are transferred from a single bank account (labeled "General Business Account" 40) to a "Master (Tip) Funding Account (MFA)" 35. Among other benefits, this approach permits a business to segregate the funds it allocates for tips, and allows the business to keep the funds outside of its General Business Account 40 to a minimum. Depending on various factors (such as the size, structure, location(s), and/or organization of the business), the tip funds can be further segregated and disbursed to each venue 15 (or each property or other metric), as illustrated by the separate location/property Tip Accounts 45 in FIG. 3. Again, simpler approaches (with fewer accounts and transfers, for example) or more complex approaches can be utilized, depending on many factors and the needs and desires of any particular business.

Ex. 1005
(Phillips), ¶ 35

303. With respect to element 1[e](iii) which recites "return the gratuity allocation to the gratuity sync client application of each respective client business system, without requiring the client business systems to execute the gratuity distribution rules," Phillips discloses in referring to Figure 3 that "the tip funds [30] can be further segregated and disbursed to each venue 15 (or each property or other metric), as illustrated by the separate location/property Tip Accounts 45 in FIG. 3." (Ex. 1005, ¶ 35.) And because each venue communicates with processor 10 via the software loaded to its POS system 20 (i.e., the "gratuity sync client application"), as discussed in element 1[b.2], Phillips discloses or renders obvious element 1[e](iii).

Ex. 1002 (Decl.), ¶ 303

See also Paper 1 at 54-55; Ex. 1002 (Decl.), ¶¶ 299-306

Phillips in view of Marshall renders obvious claim 2

Claim	Limitation
2	The system of claim 1, wherein the gratuity sync client is further configured to format the extracted transaction and employee information into an XML file before communicating the extracted information to the gratuity management server.

308. As discussed above in element 1[c], Phillips discloses that “the tip totals 25 or other information/data are uploaded from the POS system(s) 20 to a central processing system 10.” (Ex. 1005, ¶ 34.) In other words, the operating software of Phillips’ POS system (e.g., “the gratuity sync client”) prepares and initiates the transfer of data to the central processing system 10. Although Phillips does not expressly state that the collected data are transmitted from the POS systems 20 in the form of one or more digital files, a POSITA would have understood this to be so, as this would have been the only way to transmit digital information between two computer devices—e.g., the POS systems 20 and the system/processor 10. A POSITA would have been further informed by Marshall, that the transmitted digital files could be stored in different formats, including an XML file format as discussed above for Ground 1.

Ex. 1002
(Decl.), ¶ 308

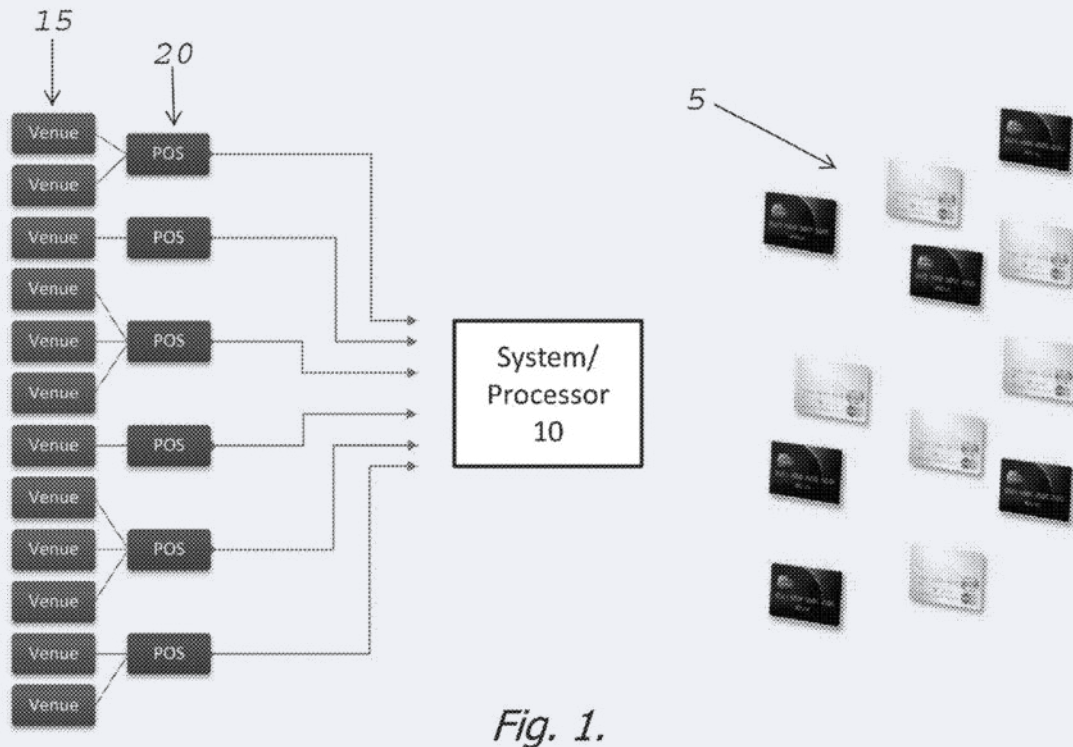
See *also* Paper 1 at 55-56;
Ex. 1002 (Decl.), ¶¶ 307-09

Phillips in view of Marshall renders obvious claim 3

Claim Limitation

3

The system of claim 1, wherein the gratuity sync client application is installed on the point of sale server of the respective client business system.



311. As discussed in elements 1[b], each POS system 20 shown in Figure 1 of Phillips belongs to a respective client business system. In addition, each POS system 20 is or corresponds to the claimed “point of sale server” (*see* Section VI.D.2.f., *supra*) operated by a software (e.g., “the gratuity sync client”; *see* Section VI.D.2.g., *supra*), which a POSITA would have understood to be installed on the POS system 20 itself (i.e., on “the point of sale server”).

Ex. 1005 (Phillips), Fig. 1

Ex. 1002 (Decl.), ¶ 311

See also Paper 1 at 56; Ex. 1002 (Decl.), ¶¶ 310-13

Phillips in view of Marshall renders obvious independent claim 8

Element 8[a] ← Elements of claim 1		Element 8[b] ← Element 1[b]	
a payment management computer system having a server and a database and being accessible by a plurality of clients, the server being configurable by each client of the plurality of clients via a web portal to execute payment distribution rules independently on a client-by-client basis; and	1[a]: a gratuity management system, comprising: 1[a.1]: a server coupled to a computer network and accessible by a plurality of clients, the server being configurable to independently execute gratuity distribution rules on a client-by-client basis; and 1[a.2]: a database, accessible by the server	the payment management computer system 8[b.1]: at least one point of sale server; and 8[b.2]: an interface component installed on the respective client business system;	1[b]: the server of the gratuity management system 1[b.1]: at least one point of sale server; and 1[b.2]: a gratuity sync client application installed on the respective client business system;

See also Paper 1 at 29-32; Ex. 1002 (Decl.), ¶¶ 180-91

Phillips in view of Marshall renders obvious independent claim 8

Element 8[c]	←	Element 1[c]	Element 8[d]	←	Element 1[d]
wherein the interface component on each client business system is configured to i. extract at least one of transaction information and employee information from the client business system and ii. to initiate transfer of the extracted information to the payment management computer system;		wherein the gratuity sync client application on each client business system is configured to i. extract transaction information and employee information from the client business system and ii. to initiate transfer of the extracted information to the gratuity management system;	wherein the payment management computer system is a cloud computing system remote from the plurality of client business systems and configured to i. receive the extracted information from the plurality of client business systems and ii. to store the received extracted information in the database; and		wherein the gratuity management system is a cloud computing system remote from the plurality of client business systems and configured to i. receive the extracted transaction information and employee information from the plurality of client business systems and ii. to store the received extracted information in the database; and

See also Paper 1 at 32-34; Ex. 1002 (Decl.), ¶¶ 192-96

Phillips in view of Marshall renders obvious independent claim 8

Element 8[e]



Element 1[e]

wherein the payment management system is further configured to

- i. execute, independently for each client, payment distribution rules based on at least the received extracted information and the independently configured payment distribution rules to generate payment information and
- ii. return the payment information to the interface component of respective client business systems, without requiring the respective client business systems to execute the payment distribution rules.

wherein the gratuity management system is further configured to

- i. execute, independently for each client, gratuity distribution rules for allocating gratuities among at least a portion of the employees and
- ii. to determine a gratuity allocation based on at least the received extracted transaction information, the received extracted employee information, and the gratuity distribution rules and
- iii. return the gratuity allocation to the gratuity sync client application of each respective client business system, without requiring the client business systems to execute the gratuity distribution rules.

A POSITA would have been motivated to combine Phillips and Marshall.



A POSITA would have looked to Marshall to further enhance the functionality of Phillips' system by applying known techniques (cloud-based architecture) to yield predictable results (centralized processing).



Cloud computing provided many known benefits, including centralized data security, easy access to information, and business continuity.



Centralized architectures in the cloud, as taught by Marshall, were well-known, so a POSITA would have had a reasonable expectation of success implementing Phillips in the cloud.



Directed to same field of art: computerized systems for allocating gratuities.

See also Paper 1 at 45-46; Ex. 1002 (Decl.), ¶¶ 251-59; Ex. 1011 at 25.

Petitioner does not rely on Phillips to “cure” the alleged cloud-based deficiencies of Marshall

✗ Patent Owner argues that “nothing in Phillips provides the requisite motivation to re-configure Marshall to be a cloud-based system.”
Paper 18 at 7-8.

- **Petitioner does not rely on Phillips to provide a motivation for reconfiguring Marshall.**
- ✓ Instead, in Ground 3, Petitioner demonstrates that it would have been obvious to implement Phillips in the cloud, as evidenced by Marshall’s disclosures. Ex. 1002 (Decl.), ¶¶ 293-94.
- ✓ Patent Owner provides no separate argument addressing Phillips as the primary reference in Ground 3. Paper 14 at 42-44; Paper 18 at 7-8.

Ground 4:
Obviousness in View of
Phillips, Marshall, and Webb

Claims 4–7, 9, 11–13

Phillips in view of Marshall and Webb renders obvious claims 4 and 11

Claim	Limitation
4	The system of claim 1, wherein the respective client business system comprises additional devices which are connected to and accessible by the gratuity sync client application.
11	The system of claim 8, wherein the respective client business system comprises additional devices which are connected to and accessible by the point of sale server.

355. Phillips discloses that its client business systems include at least a POS system 20 connected to one or more venues 15 where each POS system 20 collects information and communicates it to the central processor/system 10 (i.e., the “gratuity management system”). (See Sections VI.D.2.e and VI.D.2.g, *supra*; see also, Ex. 1005, ¶ 34 and Figs. 1, 2a, 2b.) Marshall further informs a POSITA and discloses that a client business system can include **additional** devices (i.e., in addition to a POS system) interconnected with one another, as evidenced by Webb, while these additional devices accessible by its interface system (i.e., the “gratuity sync client application”). (See Section VI.C.2., *supra*.) Further, a POSITA would have known based on his/her own knowledge of the art that having **an interconnected** set of devices or systems (plural) to manage restaurants was well known and established in the restaurant business well before the filing of the ’050 patent. (See Sections VI.C.2. and VI.D., *supra*.)

See also Paper 1 at 61, 65; Ex. 1002 (Decl.), ¶¶ 354-56, 374-78

Ex. 1002 (Decl.),
¶ 355

Phillips in view of Marshall and Webb renders obvious claims 5 and 12

Claim	Limitation
5	The system of claim 4, wherein at least one of the additional devices comprises a time and attendance server.
12	The system of claim 11, wherein at least one of the additional devices comprises a time and attendance server.

358. As discussed above in claim 4, Phillips discloses that its client business systems include at least one POS system 20. (See Section VI.E.2., *supra*.) A POSITA would have known from Marshall and Webb that it is common practice for client business systems in restaurant settings to include additional “devices” or systems for additional operational functionality and flexibility. Indeed, Marshall discloses that client business systems may include, in addition to one or more POS systems, “electronic cash register systems, timeclock programs, **time and attendance systems**, payroll processing systems, and other similar systems ... known in the art.” (See Section VI.C.3., *supra*; see also Ex. 1004 at ¶ 69.) Webb further implements a complete **time and attendance system** using a dedicated timeclock that interfaced to a dedicated personal computer. A POSITA would

Ex. 1002 (Decl.),
¶ 358

See *also* Paper 1 at 62, 65-66; Ex. 1002 (Decl.), ¶¶ 357-59, 379-80

Phillips in view of Marshall and Webb renders obvious claims 6 and 13

Claim	Limitation
6	The system of claim 5, wherein the employee information extracted from the respective client business system comprises employees' working hours.
13	The system of claim 12, wherein the employee information extracted from the respective client business system comprises employees' working hours

[0062] The invention preferably allows a similar approach for setting up “shifts” and/or “teams” of employees, which can be useful in tip-sharing calculations and otherwise. For example, in certain embodiments of the invention, the concept of a “shift” can reflect that a given downstream employee or group of such employees may work with several servers throughout a given work day. In certain embodiments, creating a “shift” can involve inputting the following information:

- [0063] Shift Name
- [0064] Start date/time and End date/time of the shift
- [0065] Identifying the employees that will be part of this shift (both servers and downstream employees).

See also Paper 1 at 62-63, 66; Ex. 1002 (Decl.), ¶¶ 360-63, 381-32

Ex. 1005 (Phillips), ¶¶ 62-65

Phillips in view of Marshall and Webb renders obvious claim 7

Claim	Limitation
-------	------------

7	The system of claim 4, wherein at least one of the additional devices comprises a payroll system, and the gratuity sync client application communicates the returned gratuity allocations to the payroll system.
---	--

366. In my analysis of claim 7 in Ground 2, I talked about Marshall disclosing a time and attendance system in its client and business system that corresponds to the '050 patent's "payroll system" because it is the time and attendance software responsible for paying each employee for the hours worked as well as the tips and gratuities received that the employee and/or employer designate to be paid as wages. (See Section VI.C.5., *supra*.) In addition, I discussed how Marshall's GrataSoft system transmits the payroll data **back** to the client business system to the time and attendance system **via** its interface system (i.e., "the gratuity sync client application"). (*Id.*) Like Marshall, Webb expressly discloses that its time and attendance server (its personal computer) handles both hour-tracking and **payroll functions**; and that it would have been clear to a POSITA that an actual payroll calculation could be performed at that point, inasmuch as all of the

information is present to calculate wages, as contemplated by Marshall. (*Id.*) In other words, a POSITA would have been well informed at the time of the filing of the '050 patent that functions, such as payroll management, were routinely carried out in the art of the era by time and attendance systems (i.e., "a payroll system"), such as the one disclosed in Webb and Marshall.

367. Thus, based on the above, a POSITA would have known, based on the disclosure from Phillips, Marshall, and Webb, that business systems are equipped with additional devices or systems (i.e., in addition to a POS system) such as a system tasked to distribute wages to employees (e.g., "a payroll system"), and further that the gratuity sync client of the client business system would communicate the returned gratuity allocations from a remote gratuity management system to the payroll system.

Phillips in view of Marshall and Webb renders obvious claim 9

Claim	Limitation
-------	------------

9	The system of claim 8, wherein the respective client business system comprises a payroll system in communication with the interface component, such that the payroll system prepares payrolls without requiring the client business system to execute the payment distribution rules.
---	---

371. Additionally, and as summarized in claim 7 above and discussed in more detail in Ground 2, Marshall's GrataSoft system (e.g., "the payment management system" of claim 8) interfaces with the **time and attendance system** "to transmit payroll data, as well as data regarding tips and/or gratuities to be paid as wages, to the time and attendance system." (Ex. 1004, ¶ 347.) In other words, the **preparation** of the payroll data is performed **exclusively** by the GrataSoft system, which **is remote** to the client business system and the time and attendance system. Additionally, it is the GrataSoft system that prepares the payroll data (e.g., "the payment information" of claim 8) **based** on "the payment distribution rules,"

and **not** the business client system, as discussed in element 8[e]. (See Section VI.C.6., *supra*.)

372. And because it is the time and attendance system (e.g., "the payroll system") that "pay[s] each employee for the hours worked as well as the tips and gratuities received that the employee and/or employer designate to be paid as wages" (Ex. 1004, ¶ 347; *see also* Section VI.C.5., *supra*), it is the time and attendance system that "prepares payrolls without requiring the client business system to execute the payment distribution rules."

Ex. 1002 (Decl.), ¶¶ 371-372

See also Paper 1 at 64-65; Ex. 1002 (Decl.), ¶¶ 369-73

A POSITA would have been motivated to combine Phillips, Marshall, and Webb.



Disclose similar and compatible systems, e.g., both include local POS systems and time and attendance servers.



Because of system similarities, modifications to Phillips to implement Marshall's and Webb's teachings would be straightforward.



Adopting Phillips's, Marshall's, and Webb's teachings in a cloud-based architecture is nothing more than the combination of known elements to yield predictable results.



Directed to same field of art: computerized systems for managing gratuities.

Petitioner does not rely on Phillips or Webb to “cure” the alleged cloud-based deficiencies of Marshall

✗ Patent Owner argues that “neither Phillips nor Webb cures any of the deficiencies set forth above with respect to Marshall, whether considered individually or combined.” Paper 14 at 44.

✓ Petitioner does not rely on Phillips or Webb to cure any deficiencies in Marshall. Instead, Marshall and Webb demonstrate that the dependent claim limitations would have been obvious. Patent Owner does not rebut Petitioner’s evidence. See Paper 14 at 44-45. Patent Owner does not address Ground 4 in its sur-reply.

The prosecution history of the '050 patent is irrelevant to the disclosures of Marshall, Phillips, and Webb.

✗ Patent Owner argues that the Board applied improper claim construction by concluding that the Examiner erred in failing to consider Marshall, Phillips, and Webb with respect to the issued claims.

- ✓ **The Board's decision was correct.** The Examiner did not consider Marshall, Phillips, or Webb “with respect to the claims that issued as the '050 patent.” Paper 11 at 16. The Examiner also did not have Dr. Russ’s testimony. *Id.* at 17.
- **Patent Owner does not explain how the file history affects the prior art disclosures.** The Examiner never considered many of the disclosures cited by Petitioner. Patent Owner also does not propose any claim construction.

Listing of Challenged Claims

Claim 1 of the '050 Patent

1. A system, comprising:

a. a gratuity management system, comprising

1. a server coupled to a computer network and accessible by a plurality of clients, the server being configurable to independently execute gratuity distribution rules on a client-by-client basis; and
2. a database, accessible by the server; and

b. a plurality of client business systems in electronic communication with the server of the gratuity management system, each of the client business systems corresponding to one of the plurality of clients, each client business system comprising:

1. at least one point of sale server; and
2. a gratuity sync client application installed on the respective client business system;

wherein the gratuity sync client application on each client business system is configured to extract transaction information and employee information from the client business system and to initiate transfer of the extracted information to the gratuity management system;

wherein the gratuity management system is a cloud computing system remote from the plurality of client business systems and configured to receive the extracted transaction information and employee information from the plurality of client business systems and to store the received extracted information in the database; and

wherein the gratuity management system is further configured to execute, independently for each client, gratuity distribution rules for allocating gratuities among at least a portion of the employees and to determine a gratuity allocation based on at least the received extracted transaction information, the received extracted employee information, and the gratuity distribution rules and return the gratuity allocation to the gratuity sync client application of each respective client business system, without requiring the client business systems to execute the gratuity distribution rules.

Claims 2-7 of the '050 Patent

2. The system of claim 1, wherein the gratuity sync client is further configured to format the extracted transaction and employee information into an XML file before communicating the extracted information to the gratuity management server.

3. The system of claim 1, wherein the gratuity sync client application is installed on the point of sale server of the respective client business system.

4. The system of claim 1, wherein the respective client business system comprises additional devices which are connected to and accessible by the gratuity sync client application.

5. The system of claim 4, wherein at least one of the additional devices comprises a time and attendance server.

6. The system of claim 5, wherein the employee information extracted from the respective client business system comprises employees' working hours.

7. The system of claim 4, wherein at least one of the additional devices comprises a payroll system, and the gratuity sync client application communicates the returned gratuity allocations to the payroll system.

Claim 8 of the '050 Patent

8. A system for providing payment management services to a plurality of clients, comprising:

- a. a payment management computer system having a server and a database and being accessible by a plurality of clients, the server being configurable by each client of the plurality of clients via a web portal to execute payment distribution rules independently on a client-by-client basis; and
- b. a plurality of client business systems in electronic communication with the payment management computer system, each of the client business systems corresponding to one of the plurality of clients, each client business system comprising:
 1. at least one point of sale server; and
 2. an interface component installed on the respective client business system;

wherein the interface component on each client business system is configured to extract at least one of transaction information and employee information from the client business system and to initiate transfer of the extracted information to the payment management computer system;

wherein the payment management computer system is a cloud computing system remote from the plurality of client business systems and configured to receive the extracted information from the plurality of client business systems and to store the received extracted information in the database; and

wherein the payment management system is further configured to execute, independently for each client, payment distribution rules based on at least the received extracted information and the independently configured payment distribution rules to generate payment information and return the payment information to the interface component of respective client business systems, without requiring the respective client business systems to execute the payment distribution rules.

Claims 9-13 of the '050 Patent

9. The system of claim 8, wherein the respective client business system comprises a payroll system in communication with the interface component, such that the payroll system prepares payrolls without requiring the client business system to execute the payment distribution rules.

10. The system of claim 8, wherein the payment distribution rules comprise gratuity allocation rules.

11. The system of claim 8, wherein the respective client business system comprises additional devices which are connected to and accessible by the point of sale server.

12. The system of claim 11, wherein at least one of the additional devices comprises a time and attendance server.

13. The system of claim 12, wherein the employee information extracted from the respective client business system comprises employees' working hours.





ORAL ARGUMENT FOR IPR2023-01408

U.S. Patent No. 9,741,050

Petitioner's Hearing Demonstratives
January 10, 2025

CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. §§ 42.6(e) the undersigned hereby certifies that on January 3, 2025 (per party agreement) and January 8, 2025 “**PETITIONER’S HEARING DEMONSTRATIVES**” were served upon lead counsel for Patent Owner, pursuant to Patent Owner’s agreement to accept such service by email as set forth in Patent Owner’s Mandatory Notices.

Lead Counsel

Timothy Devlin, Reg. No. 41,706
Devlin Law Firm LLC
1526 Gilpin Avenue
Wilmington, DE 19806
Phone: (302) 449-9010
Fax: (302) 353-4251
TD-PTAB@devlinlawfirm.com
dlflitparas@devlinlawfirm.com

Back-Up Counsel

Alan Wright, Reg. No. 40,438
Devlin Law Firm LLC
1526 Gilpin Avenue
Wilmington, DE 19806
Phone: (302) 449-9010
Fax: (302) 353-4251
awright@devlinlawfirm.com

Dated: January 8, 2025

/Sanjeet K. Dutta/

Sanjeet K. Dutta (Reg. No. 46,145)
GOODWIN PROCTER LLP
601 Marshall Street
Redwood City, California 94063
Email: sdutta@goodwinlaw.com
Tel.: +1 (650) 752-3100
Fax: +1 (650) 853-1038

Lead Counsel for Petitioner