UNITED STATES DISTRICT COURT SOUTHERN DISTRICT OF NEW YORK

MICHAEL PHILIP KAUFMAN,

Plaintiff,

No. 1:20-cv-6879

v.

COMPLAINT FOR PATENT INFRINGEMENT

SALESFORCE.COM, INC.,

Defendant.

JURY TRIAL DEMANDED

Plaintiff MICHAEL PHILIP KAUFMAN ("Plaintiff"), as and for his complaint against the defendant, salesforce.com, inc. ("Salesforce"), alleges as follows:

NATURE OF THE ACTION

1. This is an action against Salesforce for patent infringement. The patents asserted herein concern technology for automatically generating a user interface to work with the data in a relational database and related systems and methods. Plaintiff alleges herein that Salesforce's online CRM (Customer Relationship Management) services infringe the asserted patents.

THE PARTIES

- 2. Plaintiff is an individual who resides in this District.
- 3. Upon information and belief, Salesforce is a Delaware corporation with several offices in this District, including offices at 1095 Avenue of the Americas and 685 Third Avenue in New York, New York.

JURISDICTION AND VENUE

Subject Matter Jurisdiction

4. This action is for patent infringement and arises under 35 U.S.C. § 271 et seq. This Court has subject matter jurisdiction thereof pursuant to 28 U.S.C. §§ 1331, 1338(a) and 1367.

Personal Jurisdiction

- 5. This Court has personal jurisdiction over Salesforce under 28 U.S.C. § 1694, Rule 4(k)(1)(A) & (C), Fed. R. Civ. P., and the laws of the State of New York, including New York C.P.L.R. §§ 301, 302(a)(1)-(4).
- Rule 4(k)(1)(C), Fed. R. Civ. P., in that Salesforce is not a resident of this District, but has a regular and established place of business in this District, including without limitation each of Salesforce's offices in New York City referenced above, at which Salesforce has agents conducting such business. Through those agents in this District, Salesforce is regularly engaged in carrying on a substantial part of its ordinary business on a permanent basis from several physical locations within the District, over which activity Salesforce exercises a substantial measure of control. The leading one of these Salesforce locations within the District is at 1095 Avenue of the Americas in New York City, in a building overlooking Bryant Park, the "Salesforce" branding applied to the entire building in giant letters at its top, visible from great distances as part of the New York City Skyline. Other locations at which Salesforce employs agents to conduct its business in this District include (without limitation) its offices at 685 Third Avenue in New York City. Because Salesforce has such a presence in this District, it may be validly served with process in this District, by serving its agents conducting said business, and

such service establishes personal jurisdiction over Salesforce in this District, pursuant to 28 U.S.C. § 1694 (*Ruddies v. Auburn Spark Plug Co.*, 261 F. Supp. 648, 651-52 (S.D.N.Y. 1966)), and Rule 4(k)(1)(C), Fed. R. Civ. P. ("Serving a summons ... establishes personal jurisdiction over a defendant ... (C) when authorized by a federal statute").

7. In addition, a wholly separate basis for personal jurisdiction over Salesforce also exists under New York CPLR 302(a) and Rule 4(k)(1)(A), Fed. R. Civ. P., in that Salesforce transacts business within New York (e.g., its sales activities within the State), to supply services that Salesforce performs in an infringing manner as hereinafter set forth (e.g., by operating its servers that run the accused Salesforce CRM systems). Salesforce thereby commits tortious acts outside the State causing injury within the State to the person or property of Plaintiff (who resides in this State as stated above).

Venue

8. Venue is proper in this judicial District pursuant to 28 U.S.C. § 1400(b), in that Salesforce (i) has committed acts of infringement in this District, including without limitation as alleged in paragraph 37 hereof, whereby Salesforce acts through its agents in this District to induce infringement of Plaintiff's patents, which induced infringement takes place in this District, and (ii) has a regular and established place of business in this District (as alleged in paragraph 6 hereof).

STATEMENT OF FACTS

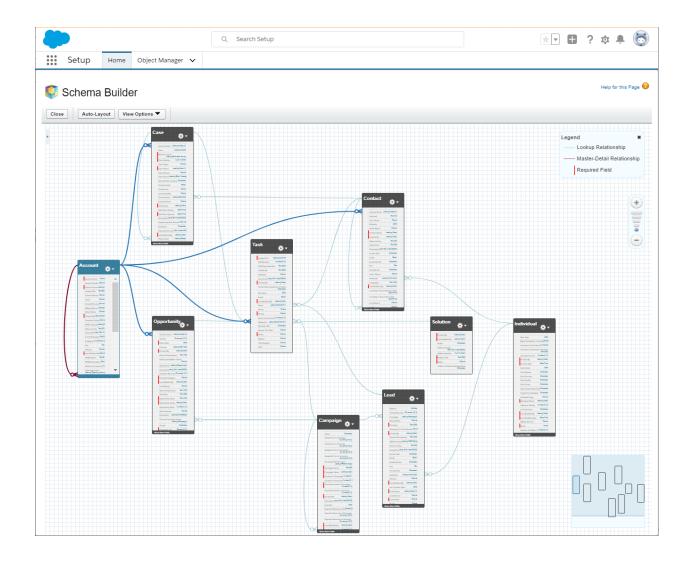
The Asserted Patents

9. Plaintiff is the first named inventor and assignee of the entire interest of U.S. Patent No. 7,885,981 (the "'981 patent") (Exhibit A hereto), U.S. Patent No. 10,025,801 (the "'801 patent") (Exhibit B hereto) and has pending U.S. Patent App. S/N 16/034,696, which was

published as U.S. Patent Publication No. 2019/0095173 A1 (the '173 publication) (Exhibit C hereto) and which, when granted, will be added to this complaint by amendment (the foregoing being collectively referred to herein as the "Asserted Patents"). Each of the Asserted Patents is incorporated herein by reference.

Salesforce's CRM Services

- 10. Salesforce sells CRM services over the internet, through server facilities operated by Salesforce and made accessible by it to the public through Salesforce's website at the Internet address salesforce.com. These CRM services include offerings known as Sales Cloud, Service Cloud, and Marketing Cloud (among others), which are widely used throughout the U.S. and this District.
- 11. Underlying Salesforce's CRM services are large relational databases, hosted on facilities operated by Salesforce in the U.S., which house end-user CRM data for the Salesforce services. On information and belief, these are "multi-tenant" databases which house data for a large number of unrelated user organizations and end users. Each end-user organization's CRM data is organized on Salesforce's multi-tenant database as a relational database ("user database"), within relational database tables (hereinafter, "user tables") defined within the multi-tenant system. The user databases and their tables are made accessible to and manageable by the end users through web-based applications designed, managed, and operated by Salesforce in the U.S.
- 12. As implemented by Salesforce, user database structures participate in cross-reference and master-detail relationships (the two types of cross-table relationships in relational databases) defined by primary and foreign keys within related tables. Salesforce provides a "Schema Builder" for working with these structures as relational databases:



13. Salesforce's CRM services allow end users to modify the structure of the user tables in a user database by adding, removing, or altering fields, tables, and/or relationships between data among tables. The user interface ("UI") presented by Salesforce's web applications, having no advance knowledge of any structural changes that a user may make to the database, adapts itself dynamically to the these changes, automatically generating an end-user UI that fits the modified database structure. On information and belief, the entire Salesforce UI for relational CRM data is generated in the same automatic manner as for the user-modified portions, that is, for default and pre-existing user database structures as well as for those modified during the session in which the UI display is generated.

- 14. As alleged in greater detail below, Salesforce's CRM UIs provide the ability to create, revise, update and delete relational CRM data, along with mechanisms for representing, managing, and navigating relationships between data records across related database tables. On information and belief, these interface facilities are generated automatically based on a computerized process provided by Salesforce to scan the CRM database structure for the user and determine the tables, constraints, and relationships of the data model.
- 15. Salesforce has operated and continues to operate its servers in the U.S. as alleged herein during the respective terms of the Asserted Patents, without authorization by Plaintiff.

Prior Notice

16. On August 10, 2020, by letter (a copies of which, along with a confirming email, are attached as Exhibit D hereto) Plaintiff gave written notice to Salesforce of the Asserted Patents, including without limitation the '981 patent, the '801 patent, and the '173 publication, of the manner in which Plaintiff alleges that Salesforce is infringing and inducing infringement thereof, and that Plaintiff is claiming provisional patent rights under 35 U.S.C. § 154(d) with respect to the '173 publication. Salesforce did not respond to Plaintiff's letter.

COUNT I

(DIRECT INFRINGEMENT OF U.S. PATENT NO. 7,885,981)

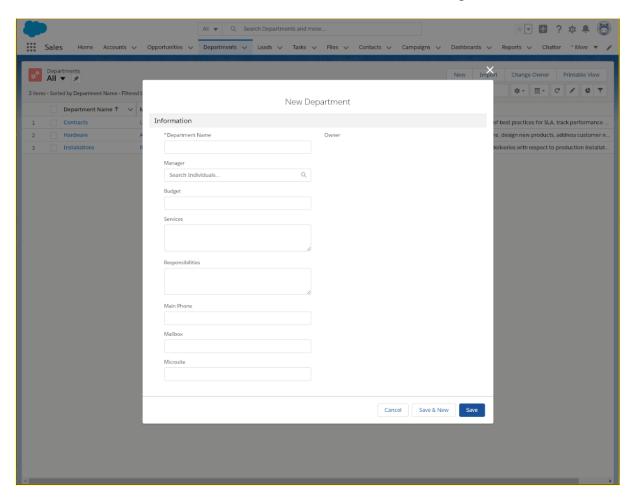
- 17. Plaintiff realleges and incorporates paragraphs 1-16 above by reference.
- 18. By operating its servers in the U.S. as alleged herein during the term of the '981 patent, without authorization by Plaintiff, Salesforce directly infringes at least claim 1 of the '981 patent, literally and/or under the doctrine of equivalents, under 35 U.S.C. § 271(a).
- 19. In the case of claim 1 of the '981 patent, Salesforce performs as recited in the claim preamble, "automatically generating an end-user interface for working with the data within

a relational database defined within a relational DBMS ... wherein [the] relational database may be of any arbitrary size or complexity," and meets the claim limitations by performing the steps of the claim, literally, and/or under the doctrine of equivalents, as follows:

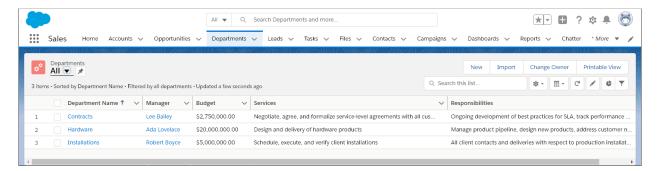
(a) providing an output stream from said server, for user display and input devices, defining a user interface paradigm comprising a set of modes for interacting with a given database table, said modes comprising create, retrieve, update and delete, and a corresponding display format for each mode

Salesforce provides an output stream from its servers (http protocol stream), for user display and input devices (the user's screen, keyboard, mouse, etc.). The http protocol stream defines, for the user's web browser, a user interface paradigm providing create, retrieve, update, and delete modes for interacting with CRM database tables, with corresponding UI display formats.

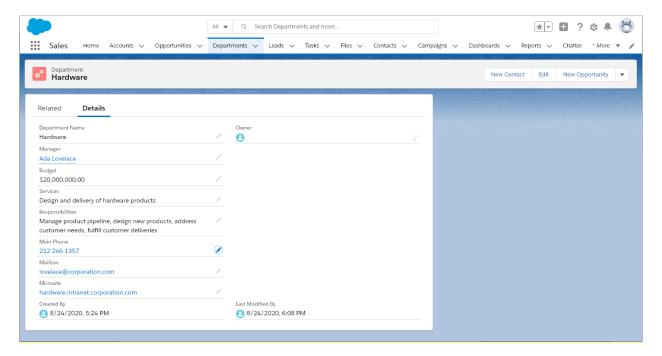
A "create" mode is reflected in Salesforce screens such as the following:



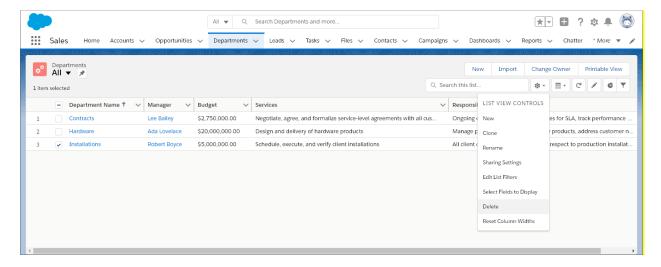
A "retrieve" mode is reflected in Salesforce screens such as the following:



An "update" mode is reflected in Salesforce screens such as the following:



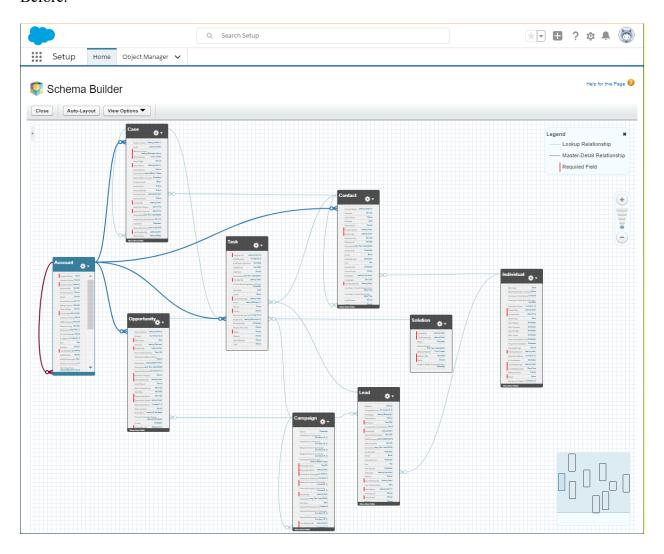
A "delete" mode is reflected in Salesforce screens such as the following:



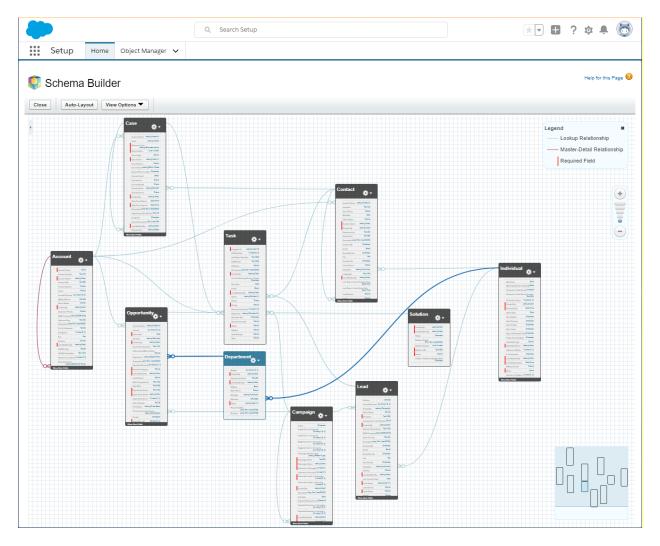
(b) causing said server to scan said database and apply a body of rules to determine the table structures, constraints and relationships of said data model, and store representations thereof in machine-readable media accessible to said server

To determine the elements to be represented in the user interface, Salesforce's server scans the user's CRM database and applies a body of rules to determine its table structures, constraints, and relationships, and stores a representation thereof in the server's machine-readable storage. While this step is internal to Salesforce's operations, Plaintiff alleges on information and belief that it is plausible that this step takes place because the various Salesforce CRMs all allow the users to alter the table structures, constraints and relationships and the Salesforce CRM dynamically adapts to such changes. For example, in a user-level database having Account and Opportunity tables, a user can add a Department table, wherein each Opportunity is assigned to a Department:

Before:



After:



The Salesforce CRM applications automatically render the corresponding displays after this new table is added, reflecting that the applications re-scan the user database upon re-rendering the user display screens, evidencing performance of this claim step.

(c) causing said server to use said representations to construct a corresponding client application for access through said user display and input devices

Salesforce's servers use the representations they have stored pursuant to step (b) to construct a client application corresponding to the database, for access through the user display and input devices in communication with the server. This may be seen, for example, where screens of a user-modified database are rendered, as above.

wherein said client application provides a connection to said database

It is apparent from the fact that user changes to the database data are persistent across repeated accesses that the generated client application provides a connection to the database.

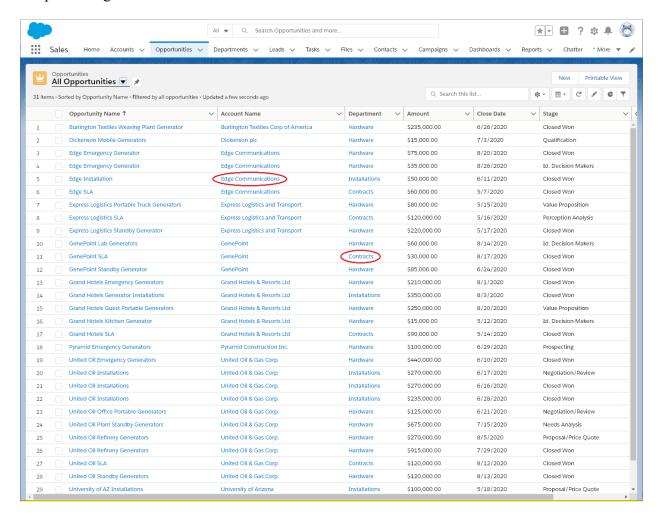
provides displays of the table contents of said database for each of said modes in accordance with the display formats of said paradigm

As illustrated with respect to step (b) above, the client application UI provides displays of the user-level tables for performing create, retrieve, update, and delete modes, in accordance with the display formats of the generated UI paradigm.

integrates into each said mode display processes for representing, navigating, and managing said relationships across tables, for selecting among said modes, and for navigating across said tables and interacting in accordance the selected mode with the data in the tables that are reached by said navigation

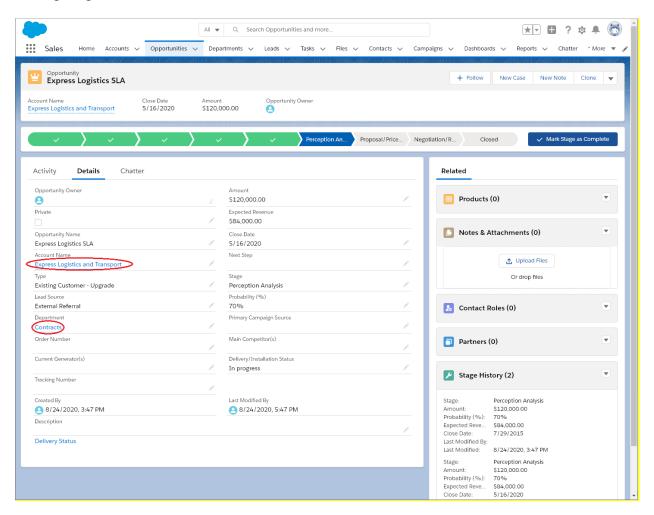
Each mode display integrates a number of processes, which include processes for representing, navigating, and managing said relationships across tables, for selecting among the create, retrieve, update, and delete operations, and for interacting in accordance the selected mode with the data in the tables that are reached by said navigation. For example,

"Representing":

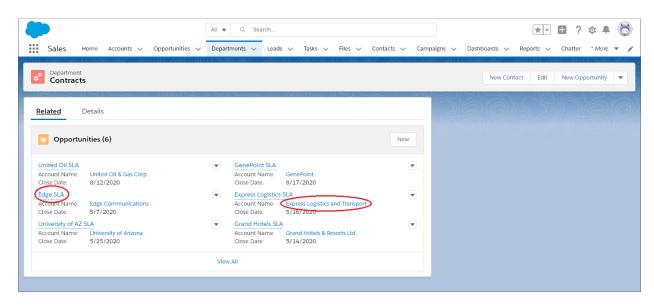


The display above integrates a process for "representing" a relationship across tables, in this example by replacing actual the foreign key for an Opportunity's Account with the Account name.

"Navigating":

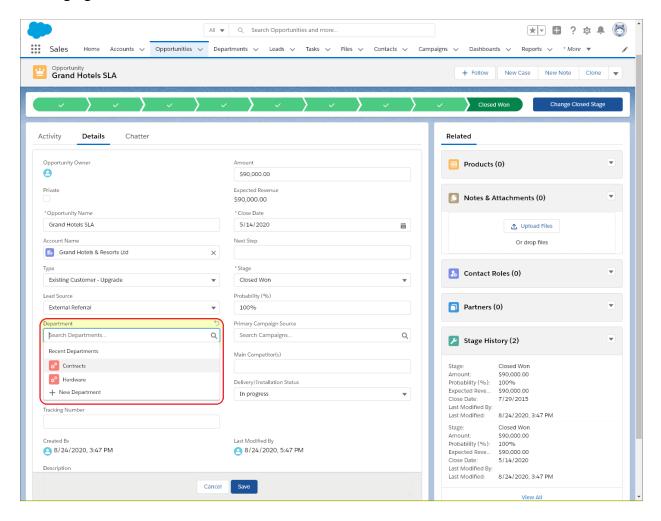


or,



The displays above integrate a process for "navigating" a relationship across tables, in these examples by providing navigational links to data in a related table.

"Managing":



The display above integrates a process for "managing" a relationship across tables, in this example by providing dropdown control to constrain permissible inputs to valid data as provided in the corresponding column of the related table.

while observing and enforcing relational interdependencies among data across tables

Salesforce's end-user applications provide all of the above features that are operable in a manner that consistently observes and enforces relational interdependencies among data across tables.

- 20. In performing as described in paragraph 19, Salesforce also directly infringes claim 2 of the '981 patent, under 35 U.S.C. § 271(a), literally, and/or under the doctrine of equivalents, by providing through its generated user applications the additional feature of user interface components for revealing and enforcing non-relational constraints (*e.g.*, restricting user input to conform with applicable data types such as numbers, alphabetical input, and dates, etc.).
- 21. In performing as described in paragraph 19, Salesforce also directly infringes claim 3 of the '981 patent, under 35 U.S.C. § 271(a), literally, and/or under the doctrine of equivalents, in that Salesforce's CRM databases provide the database feature known as "referential integrity constraints," as recited in claim 3.
- 22. Claim 4 of the '981 patent is an independent "system" claim corresponding to claim 1, claiming a computer system that Salesforce runs to perform the process recited in claim 1. Salesforce directly infringes claim 4, under 35 U.S.C. § 271(a), literally, and/or under the doctrine of equivalents, by making and using it servers, which constitute the claimed system, in the U.S., during the term of the '981 patent, without authority from Plaintiff.
- Claim 5 of the '981 patent is an independent "computer-readable media" claim corresponding to claim 1, claiming a machine-readable medium containing software that Salesforce runs to perform the process recited in claim 1. Salesforce directly infringes claim 5, under 35 U.S.C. § 271(a), literally, and/or under the doctrine of equivalents, by making and using the claimed computer-recorded medium, for example, the computer-readable media on Salesforce's servers that a contains recorded copy of the computer programs that run Salesforce's servers, in the U.S., during the term of the '981 patent, without authority from Plaintiff, as well as any other copies of these computer programs stored on computer-readable media.

- 24. Pursuant to 35 U.S.C. § 284, Plaintiff is entitled to compensation for said infringements, in no event less than a reasonable royalty, for the use made of the invention by Salesforce as herein alleged, together with pre- and post-judgment interest and costs as fixed by the Court.
- 25. The foregoing also reflects infringement of at least claims 1, 5, and 8 published in the '173 publication, pursuant to which Salesforce will likewise be liable for damages under 35 U.S.C. 154(d) when a patent issues upon the patent application so published, which will be added to this complaint by amendment.

COUNT II

(DIRECT INFRINGEMENT OF U.S. PATENT NO. 10,025,801)

- 26. Plaintiff realleges and incorporates paragraphs 1-25 above by reference.
- On information and belief, when a first user-level table is related to a second user-level table through a foreign key, Salesforce's servers, in rendering the first user-level table in the CRM UI, automatically supplant the foreign key in the representation of the first user-level table with a description derived from the column having the name "Name" in the second table, thereby enhancing the "raw" representation of the data of the first table by replacing what would have been a numeric value in the display of the first table with a more human-friendly description derived from the second table. This functionality, separately claimed in the '801 patent, may be seen, for example, in the "representing" feature illustrated in ¶ 19 above, with regard to step (c) of claim 1 of the '981 patent.
- 28. Salesforce derives the data and description for use in the display of foreign references in primary user-level tables in the Salesforce CRM, in the manner specified in at least claim 1 of the '801 patent, literally and/or under the doctrine of equivalents. By using its servers

in the U.S. in such manner and otherwise as alleged in paragraph 27, during the term of the '801 patent, without authorization by Plaintiff, Salesforce has directly infringed and continues to directly infringe claim 1 of the '801 patent, under 35 U.S.C. § 271(a).

- 29. Claim 5 of the '801 patent is an independent "computer-readable media" claim corresponding to claim 1, claiming a machine-readable medium containing software that Salesforce runs to perform the process recited in claim 1. Salesforce directly infringes claim 5, under 35 U.S.C. § 271(a), literally, and/or under the doctrine of equivalents, by making and using the claimed computer-recorded medium, for example, the computer-readable media on Salesforce's servers that a contains recorded copy of the computer programs that run Salesforce's servers, in the U.S., during the term of the '801 patent, without authority from Plaintiff, as well as any other copies of these computer programs stored on computer-readable media.
- 30. The manner in which Salesforce derives and describes foreign key fields in the representation of its CRM databases further directly infringes at least claims 9, 11, 16, and 18 of the '801 patent, under 35 U.S.C. § 271(a) literally, and/or under the doctrine of equivalents.
- 31. Pursuant to 35 U.S.C. § 284, Plaintiff is entitled to compensation for said infringements, in no event less than a reasonable royalty, for the use made of the invention by Salesforce as herein alleged, together with pre- and post-judgment interest and costs as fixed by the court.

COUNT III

(INDUCED INFRINGEMENT OF THE '981 PATENT)

32. Plaintiff realleges and incorporates paragraphs 1-31 above by reference.

- 33. There exist numerous persons in the U.S. and in this District ("Salesforce CRM Users") who have used and continue to use the infringing features of the Salesforce CRM as alleged in Counts I and II herein.
- 34. Salesforce CRM users necessarily directly infringe at least claims 4 and 5 of the '981 patent, and at least claim 5 of the '801 patent, literally, and/or under the doctrine of equivalents, by using the system as alleged in paragraph 22, and the media as alleged in paragraphs 23 and 29, without authorization by Plaintiff, in the U.S., during the terms of the '981 patent and '801 patent, constituting direct infringement of at least claims 4 and 5 of the '981 patent, and claim 5 of the '801 patent, under 35 U.S.C. § 217(a).
- 35. Through its sales and marketing efforts, and user instructions, in this District and elsewhere in the U.S., Salesforce induces Salesforce CRM Users to use the Salesforce CRM and thereby directly infringe the '981 and '801 patents as alleged in paragraph 34, under 35 U.S.C. § 271(a).
- 36. Salesforce has been on notice of the '981 and '801 patents and of the direct and induced infringement alleged herein, at least by reason of the written notice given to Salesforce as set forth in paragraph 16, as well as the filing of this complaint.
- 37. Notwithstanding such notice, Salesforce continues its own infringement, and by its acts of sales, marketing, and instruction, which take place at locations in the U.S. including without limitation Salesforce's offices in this District, continues its inducement of the Salesforce CRM Users, including a substantial number of Salesforce CRM Users in this District, to directly infringe by using the infringing Salesforce CRM, as hereinabove alleged, knowing that the Salesforce CRM users are thereby directly infringing the '981 and '801 patents and intending

Salesforce's acts to cause such infringement, constituting induced infringement, in this District and elsewhere in the U.S., under 35 U.S.C. § 271(b).

- 38. Pursuant to 35 U.S.C. § 284, Plaintiff is entitled to compensation for said infringements, in no event less than a reasonable royalty, for said inducement as herein alleged, together with pre- and post-judgment interest and costs as fixed by the court.
- 39. The foregoing also reflects induced infringement of at least claim 5 published in the '173 publication, pursuant to which Salesforce will likewise be liable for damages under 35 U.S.C. 154(d) when a patent issues upon the patent application so published, which will be added to this complaint by amendment.

COUNT IV

(WILLFUL INFRINGEMENT)

- 40. Plaintiff realleges and incorporates paragraphs 1-39 above by reference.
- 41. Salesforce knew of the Asserted Patents since at least the date of the notice set forth in paragraph 16 (the "Notice Date").
- 42. On information and belief, since the Notice Date, and with knowledge of the Asserted Patents and of the manner in which it was being accused of infringing the Asserted Patents, Salesforce has continued its direct and induced infringement thereof. Salesforce has done so intentionally, and is accordingly a willful infringer.
- 43. For reasons including without limitation the foregoing, Plaintiff is entitled to enhanced damages under 35 U.S.C. § 284.

PRAYER FOR RELIEF

Plaintiff requests that the Court enter judgment against Salesforce as follows:

(A) that Salesforce has infringed the Asserted Patents;

- (B) awarding Plaintiff its damages suffered as a result of Salesforce's infringement of the Asserted Patents pursuant to 35 U.S.C. § 284;
 - (C) awarding Plaintiff enhanced damages pursuant to 35 U.S.C. § 284;
- (D) permanently enjoining Salesforce, its officers, directors, agents, servants, affiliates, employees, divisions, branches, subsidiaries and parents, and all others acting in concert or privity with them, from infringing the Asserted Patents;
- (E) awarding Plaintiff its costs, attorneys' fees, expenses, and interest (including without limitation pre-judgment interest); and
 - (F) granting Plaintiff such other and further relief as the Court may deem just and proper.

DEMAND FOR JURY TRIAL

Plaintiff hereby demands trial by jury on all issues so triable pursuant to Rule 38, Fed. R.

Civ. P.

Dated: August 25, 2020

/s Ronald Abramson

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