UNITED STATES DISTRICT COURT FOR THE NORTHERN DISTRICT OF CALIFORNIA

PURE DATA SYSTEMS, LLC

Plaintiff,

v.

UBISOFT, INC.

Defendant,

Civil Action No. 3:18-cv-852 JURY TRIAL DEMANDED

COMPLAINT FOR PATENT INFRINGEMENT

This is an action for patent infringement arising under the Patent Laws of the United States of America, 35 U.S.C. § 1 et seq. in which Plaintiff Pure Data Systems, LLC ("PDS" or "Plaintiff") files this patent infringement action against Defendant Ubisoft, Inc. ("Ubisoft"), and alleges as follows:

BACKGROUND

- 1. PDS is the assignee of all right, title, and interest in and to U.S. Patent No. 5,999,947, entitled "Patent for inventions covering a method of distributing database differences" ("the '947 Patent," attached as Exhibit A), and U.S. Patent No. 6,321,236 ("the '236 Patent," attached as Exhibit B), entitled "Patent for inventions covering a system for distributing differences" (collectively, the "Patents-in-Suit"). PDS has the exclusive right to assert all causes of action arising under the Patents-in-Suit and the right to remedies for infringement thereof.
- 2. The inventive concepts of the Patents-in-Suit are directed to a technical solution to solve a problem unique to data storage systems, by greatly enhancing and facilitating the operation and efficiency of data storage systems.
- 3. For example, the inventions are directed to distributing differences from a server computer, which is a hardware system, configured to store a current version of data, which is distributed and updated over a communications network, which is

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also a hardware system. The claimed invention further recites receiving a request from a client computer, which is also a hardware system. It further recites translating differences from a generic format (or in other claims a first format) into specific format that is compatible with the type of data on the client computer (or in other claims a second format), and transmitting the differences to the client. This improves the functioning of the data storage system, for example, by efficiently using system resources and permitting client systems that are intermittently (as opposed to continuously) connected to a server system to synchronize with information from the server. ('947 Patent, col. 1, lines 9-19; '236 Patent, col. 1, lines 13-23). Without the claimed invention, data storage systems would, for example, be required to download the entire set of data, which requires large amounts of bandwidth, is expensive, and time consuming. ('947 Patent, col. 2, lines 1-8; '236 Patent, col. 2, lines 5-12.) Without the claimed invention, another drawback is the need to make a dynamic comparison of the client and original database, which requires large amounts of handshaking and data transfer. ('947 Patent, col. 2, lines 9-17; '236 Patent, col. 2, lines 13-21.)

- 4. The technology claimed in the Patents-in-Suit presented new and unique advantages over the state of the art at the time. Although the inventions taught in the claims of the Patents-in-Suit have by today been widely adopted by leading businesses, at the time of the invention, the technologies were innovative.
- 5. For example, during prosecution of the application that issued as the '947 Patent, the Examiner at the United States Patent and Trademark Office attempted to apply as prior art U.S. Patent No. 5,758,355 ("Buchanan") to the pending claims. The applicants explained that Buchanan does not teach "translating database differences from a generic format into instructions specific to the type of database engine associated with the client copy," but rather "merely discloses the concept of bidirectional synchronization of a client database and a server database, and does not make any reference to translating database differences at a particular data format."

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Similarly, during prosecution of the application that issued as the '236 Patent, the applicants distinguished Buchanan on the basis that it does not disclose a database with a translated format.

- As another example, during prosecution of the application that issued as 6. the '947 Patent, the Examiner at the United States Patent and Trademark Office also attempted to apply U.S. Patent No. 5,634,052 ("Morris") the pending claims. The applicants explained that in their invention, database differences are transmitted from the server to the client, which enables the client computer to maintain an updated copy of a database table stored at the server. In contrast, Morris discloses a system whereby a delta file, which represents the differences between a base file and a new version of the base tile, is transmitted from the client to the server. While transmitting the delta files from the client to the server enables a file stored at the client to be backed up and archived at the server, this function is significantly different from that of the claimed invention and fails to disclose all the elements of the claim.
- 7. As another example, during prosecution of the application that issued as the '236 Patent, the Examiner at the United States Patent and Trademark Office attempted to apply U.S. Patent No. 5,870,765 ("Bauer") to the pending claims. The applicant distinguished the pending claims on the basis that they are directly opposed to the disclosure of the Bauer patent.
- The claims of the '701 Patent are not directed to a "method of organizing 8. human activity," "fundamental economic practice long prevalent in our system of commerce," or "a building block of the modern economy." Instead, they are limited to technological solutions for data storage systems.
- Additionally, the technology claimed in the Patents-in-Suit does not 9. preempt all ways for distributing differences from a server computer. For example, the claims apply only to using different data formats on the server (e.g. a generic format) and client (e.g. a specific format). It follows that Defendant could choose other ways of distributing differences, such as using the same data formats on both the client or

server, or by using a specific format on the server and a generic format on the client.

- 10. Additionally, the prior art cited on the face of the Patents-in-Suit remains available for practice by the Defendant, and the Patents-in-Suit do not preempt practice any of those prior art systems or methods. The claims of the Patents-in-Suit cannot be practiced by a human alone and there exists no human analogue to the methods and systems claimed in the Patents-in-Suit. The claims are specifically directed to distributing data from server computers to client computers. Components such as server and client computer exist only in the context of computer-based systems, and cannot be practiced by a human alone.
- 11. By practicing a system for distributing differences corresponding to one or more change events, Ubisoft is infringing the claims of the Patents-in-Suit.

PARTIES

- 12. PDS is a Texas Limited Liability Company with a principal place of business at 1400 Preston Road, Suite 400, Plano, Texas 75093.
- 13. On information and belief, Ubisoft, Inc. is a California Corporation with its principal place of business located at 625 3rd Street, San Francisco, CA 94107. Ubisoft may be served with process by delivering a summons and a true and correct copy of this Complaint to its registered agent for receipt of service of process, Stephen Smith, Law Office of Stephen Smith, PC., 30700 Russel Rand Rd, Suite 250, Westlake Village, CA 91362.

JURISDICTION AND VENUE

- 14. This action arises under the patent laws of the United States, Title 35 of the United States Code. Accordingly, this Court has subject matter jurisdiction under 28 U.S.C. §§ 1331 and 1338(a).
- 15. Court has personal jurisdiction over Ubisoft because, among other reasons, Ubisoft has established minimum contacts with the forum state of California.
- 16. Venue is proper in this District under 1400(b) because Ubisoft has committed acts of patent infringement in this District and has a regular and established

place of business in this District located at 625 3rd Street, San Francisco, CA 94107.

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INFRINGEMENT OF U.S. PATENT NO. 5,999,947

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17. foregoing paragraphs, and further alleges as follows:

COUNT I

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Plaintiff	incorporates	by	reference	each	of	the	allegations	in	the
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- On December 7, 1999, the United States Patent and Trademark Office 18. issued the '947 Patent for inventions covering a method of distributing database differences. In one claimed embodiment, a method of distributing database differences corresponding to database change events made to a database table located on a server computer to client copies of the database table located on one or more client computers, each client computer capable of having different database engines comprising the steps of: storing database differences at the server computer in a generic format; receiving from a client computer a request for all database differences needed to make a client copy of the database table current; translating the differences from the generic format into instructions having a specific format compatible with the type of database engine associated with the client copy of the database table; and transmitting the instructions to the client computer for execution on the client database engine to make the client copy of the database table current. A true and correct copy of the '947 Patent is attached as Exhibit A.
- 19. Ubisoft has been and is now directly and indirectly infringing one or more claims of the '947 Patent, in this judicial District and elsewhere in the United States.
- 20. Ubisoft infringes in its game library updates. For example, a user's game library is synchronized between an Ubisoft server and a user's computer. If a user purchases a game through the Ubisoft website using a browser, the user's game library is updated on a server. When the user next logs into the Uplay client, those updates are transmitted to the Uplay client running on the user's computer.
 - Ubisoft directly infringes the '947 Patent, including but not limited to 21.

claim 6, by practicing a method of distributing database differences corresponding to database change events, according to the claims of the '947 Patent.

- 22. For example, Ubisoft distributes database differences corresponding to database change events made to a database table located on a server computer to client copies of the database table located on one or more client computers, each client computer capable of having different database engines. For example, Ubisoft employs a method of distributing database change events from a server to a client when updating a user's game library in the Uplay client.
- 23. Ubisoft stores database differences at the server computer in a generic format. For example, database differences (e.g., changes to a user's game library) are stored in a generic format (e.g., SQL) at an Ubisoft server computer.
- 24. Ubisoft receives from a client computer a request for all database differences needed to make a client copy of the database table current. For example, a request from a client computer is received to update the client copy of the database table (e.g., the list of games in a user's library).
- 25. Ubisoft translates the differences from the generic format into instructions having a specific format compatible with the type of database engine associated with the client copy of the database table. For example, differences are translated from the generic format (e.g., MySQL) to a specific format compatible with the database of the client (e.g., the "configurations" file located in the "configuration" subfolder of the "Ubisoft" directory).
- 26. Ubisoft transmits the instructions to the client computer for execution on the client database engine to make the client copy of the database table current. For example, instructions are transmitted to the client computer to update the client database table.
- 27. By practicing a method for distributing differences corresponding to one or more change events, Ubisoft is infringing the claims of the '947 Patent, including but not limited to claim 6. Ubisoft has committed these acts of infringement without

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- 28. Ubisoft also infringes in its game statistics updates. Statistics (e.g., time played or distance traveled) is synchronized between an Ubisoft server and a user's computer. For example, if a user plays a game on a first computer, statistics associated with the gameplay (e.g., time played or distance traveled) is updated at a server. If the user logs into the Uplay client on a second computer, those changes are transmitted to the Uplay client running on the second computer.
- Ubisoft directly infringes the '947 Patent, including but not limited to 29. claim 6, by practicing a method of distributing database differences corresponding to database change events, according to the claims of the '947 Patent.
- 30. Ubisoft distributes database differences corresponding to database change events made to a database table located on a server computer to client copies of the database table located on one or more client computers, each client computer capable of having different database engines. For example, Ubisoft employs a method of distributing database change events from a server to a client when updating statistics associated with games in a user's game library in the Uplay client.
- 31. Ubisoft stores database differences (e.g., changes to a game's statistics are stored in a generic format (e.g., MySQL) at an Ubisoft server computer.
- 32. Ubisoft receives from a client computer a request for all database differences needed to make a client copy of the database table current. For example, a request from a client computer is received to update the client copy of the database table.
- Ubisoft translates the differences from the generic format into 33. instructions having a specific format compatible with the type of database engine associated with the client copy of the database table. For example, differences are translated from the generic format (e.g., MySQL) to a specific format compatible with the database of the client (e.g., a file in the "game_stats" folder, such as "335308d7-2b09-47aa-8ffd-d5de9bb0b57b").

- 34. Ubisoft transmits the instructions to the client computer for execution on the client database engine to make the client copy of the database table current. For example, instructions are transmitted to the client computer to update the client database table.
- 35. By practicing a method for distributing differences corresponding to one or more change events, Ubisoft is infringing the claims of the '947 Patent, including but not limited to claim 6. Ubisoft has committed these acts of infringement without license or authorization.
- 36. Ubisoft has injured PDS and is liable to PDS for direct and indirect infringement of the claims of the '947 Patent pursuant to 35 U.S.C. § 271(a), (b), and (c).
- 37. As a result of Defendant's infringement of the '947 Patent, PDS has suffered harm and seeks monetary damages in an amount adequate to compensate for infringement, but in no event less than a reasonable royalty for the use made of the invention by Ubisoft, together with interest and costs as fixed by the Court.
- 38. Ubisoft also infringes in its game updates. Game files are synchronized between a Ubisoft server and a user's computer. For example, when a game receives an update, rather than re-downloading an entire game, the Uplay client receives instructions for updating only the game files that have changed.
- 39. Ubisoft directly infringes the '947 Patent, including but not limited to claim 6, by practicing a method of distributing database differences corresponding to database change events, according to the claims of the '947 Patent.
- 40. For example, Ubisoft distributes database differences corresponding to database change events made to a database table located on a server computer to client copies of the database table located on one or more client computers, each client computer capable of having different database engines. For example, Ubisoft employs a method of distributing database change events from a server to a client when updating game files for a game in a user's game library in the Uplay client.

- 41. Ubisoft stores database differences (e.g., updates to game files) are stored in a generic format (e.g., MySQL) at an Ubisoft server computer.
- 42. Ubisoft receives from a client computer a request for all database differences needed to make a client copy of the database table current. For example, a request from a client computer is received to update the client copy of the database table (e.g., game files).
- 43. Ubisoft translates the differences from the generic format into instructions having a specific format compatible with the type of database engine associated with the client copy of the database table. For example, differences are translated from the generic format (e.g., MySQL) to a specific format compatible with the database of the client (e.g., game files, such as GRW.exe).
- 44. Ubisoft transmits the instructions to the client computer for execution on the client database engine to make the client copy of the database table current. For example, instructions are transmitted to the client computer to update the client database table.
- 45. By practicing a method for distributing differences corresponding to one or more change events, Ubisoft is infringing the claims of the '947 Patent, including but not limited to claim 6. Ubisoft has committed these acts of infringement without license or authorization.
- 46. Ubisoft has injured PDS and is liable to PDS for direct and indirect infringement of the claims of the '947 Patent pursuant to 35 U.S.C. § 271(a), (b), and (c).
- 47. As a result of Defendant's infringement of the '947 Patent, PDS has suffered harm and seeks monetary damages in an amount adequate to compensate for infringement, but in no event less than a reasonable royalty for the use made of the invention by Ubisoft, together with interest and costs as fixed by the Court.

COUNT II

INFRINGEMENT OF U.S. PATENT NO. 6,321,236

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48. Plaintiff incorporates by reference each of the allegations in the foregoing paragraphs, and further alleges as follows:

- 49. On November 20, 2001, the United States Patent and Trademark Office issued the '236 Patent for inventions covering a system for distributing differences. One claimed embodiment recites a system for distributing differences corresponding to one or more change events made to a data store located on a server computer, the differences being distributed to one or more client copies of at least a portion of the data store, wherein the one or more client copies of the at least a portion of the data store are located on one or more client computers, the system comprising: a current server version of the data store configured to permit modifications to data contained therein; a reference server version of the data store; a differencing engine that identifies, at a given instance in time, any differences between the current server version of the data store and the reference server version of the data store; one or more updates storing one or more differences generated by the differencing engine wherein the one or more differences are in a first format; a translator that converts any differences destined for the client copy of the at least a portion of the data store from the first format into a second format; a communication network; and a synchronizer that obtains from the differencing engine any differences that are needed to make the one or more client copies of the at least a portion of the data store current, and transmits the differences to the one or more client copies of the at least a portion of the data store by way of the communication network." A true and correct copy of the '236 Patent is attached as Exhibit B.
- 50. Ubisoft has been and is now directly and indirectly infringing one or more claims of the '236 Patent, in this judicial District and elsewhere in the United States.
- 51. Ubisoft infringes in its game library updates. A user's game library is synchronized between an Ubisoft server and a user's computer. For example, if a user purchases a game through the Ubisoft website using a browser, the user's game library

transmitted to the Uplay client running on the user's computer.

52. For example, Ubisoft directly infringes the '236 Patent, including but not limited to claim 1, by making, using, selling, and offering a system for distributing

differences corresponding to one or more change events, according to the claims of the

is updated on a server. When the user next logs into the Uplay client, those updates are

'236 Patent.

- 53. Ubisoft makes, uses sells and offers a system for distributing differences corresponding to one or more change events made to a data store located on a server computer, the differences being distributed to one or more client copies of at least a portion of the data store, wherein the one or more client copies of the at least a portion of the data store are located on one or more client computers. For example, Ubisoft makes, uses, offers, and provides a system for distributing data store change events from a server to a client when updating a user's game library in the Uplay client.
- 54. The Ubisoft system comprises a current server version of the data store configured to permit modifications to data contained therein; a reference server version of the data store; a differencing engine that identifies, at a given instance in time, any differences between the current server version of the data store and the reference server version of the data store. For example, when a game is purchased, that game is added to a user's library. This difference is detected by the server as change from the previous library.
- 55. The Ubisoft system comprises one or more updates storing one or more differences generated by the differencing engine wherein the one or more differences are in a first format. For example, these differences are stored in a first format (e.g., MySQL).
- 56. The Ubisoft system comprises a translator that converts any differences destined for the client copy of the at least a portion of the data store from the first format into a second format. For example, differences are translated from the generic format (e.g., MySQL) to a second format compatible with the data store of the client

(e.g., the "configurations" file located in the "configuration" subfolder of the "Ubisoft" directory).

- 57. The Ubisoft system comprises a communication network. For example, Uplay requires the use of a communication network (e.g., Wi-Fi or LTE).
- 58. The Ubisoft system comprises a synchronizer that obtains from the differencing engine any differences that are needed to make the one or more client copies of the at least a portion of the data store current, and transmits the differences to the one or more client copies of the at least a portion of the data store by way of the communication network. For example, differences are transmitted to the client for execution to update the client data store (e.g., the "configurations" file located in the "configuration" subfolder of the "Ubisoft" directory).
- 59. By making, using selling, and offering a system for distributing differences corresponding to one or more change events, Ubisoft is infringing the claims of the '236 Patent, including but not limited to claim 1. Ubisoft has committed these acts of infringement without license or authorization.
- 60. Ubisoft also infringes in its game statistics updates. Game statistics (e.g., time played or distance traveled) is synchronized between an Ubisoft server and a user's computer. For example, if a user plays a game on a first computer, statistics associated with the gameplay (e.g., time played or distance traveled) is updated at a server. If the user logs into the Uplay client on a second computer, those changes are transmitted to the Uplay client running on the second computer.
- 61. For example, Ubisoft directly infringes the '236 Patent, including but not limited to claim 1, by making, using, selling, and offering a system for distributing differences corresponding to one or more change events, according to the claims of the '236 Patent.
- 62. Ubisoft makes, uses sells and offers a system for distributing differences corresponding to one or more change events made to a data store located on a server computer, the differences being distributed to one or more client copies of at least a

portion of the data store, wherein the one or more client copies of the at least a portion of the data store are located on one or more client computers. For example, Ubisoft makes, uses, offers, and provides a system for distributing data store change events from a server to a client when updating statistics associated with games in a user's game library in the Uplay client.

- 63. The Ubisoft system comprises a current server version of the data store configured to permit modifications to data contained therein; a reference server version of the data store; a differencing engine that identifies, at a given instance in time, any differences between the current server version of the data store and the reference server version of the data store. For example, changes to game statistics are distributed from server to client. For example, as statistics change during gameplay, the differences are detected by the server as changes from the previous statistics.
- 64. The Ubisoft system comprises one or more updates storing one or more differences generated by the differencing engine wherein the one or more differences are in a first format. For example, these differences are stored in a first format (e.g., MySQL).
- 65. The Ubisoft system comprises a translator that converts any differences destined for the client copy of the at least a portion of the data store from the first format into a second format. For example, differences are translated from the generic format (e.g., MySQL) to a specific format compatible with the data store of the client (e.g., a file in the "game_stats" folder, such as "335308d7-2b09-47aa-8ffd-d5de9bb0b57b").
- 66. The Ubisoft system comprises a communication network. For example, Uplay requires the use of a communication network (e.g., Wi-Fi or LTE).
- 67. The Ubisoft system comprises a synchronizer that obtains from the differencing engine any differences that are needed to make the one or more client copies of the at least a portion of the data store current, and transmits the differences to the one or more client copies of the at least a portion of the data store by way of the

communication network. For example, differences (e.g., updates to statistics of games in a user's library) are transmitted to the client for execution to update the client data store (e.g., a file in the "game_stats" folder, such as "335308d7-2b09-47aa-8ffd-d5de9bb0b57b").

- 68. Ubisoft also infringes in its game updates. Game files are synchronized between a Ubisoft server and a user's computer. For example, when a game receives an update, rather than re-downloading an entire game, the Uplay client receives instructions for updating only the game files that have changed.
- 69. Ubisoft makes, uses sells and offers a system for distributing differences corresponding to one or more change events made to a data store located on a server computer, the differences being distributed to one or more client copies of at least a portion of the data store, wherein the one or more client copies of the at least a portion of the data store are located on one or more client computers. For example, Ubisoft employs a method of distributing database change events from a server to a client when updating game files for a game in a user's game library in the Uplay client.
- 70. The Ubisoft system comprises a current server version of the data store configured to permit modifications to data contained therein; a reference server version of the data store; a differencing engine that identifies, at a given instance in time, any differences between the current server version of the data store and the reference server version of the data store. For example, changes to game files are distributed from server to client. For example, when a game update is available, differences are detected by the server as changes from the previous game files.
- 71. The Ubisoft system comprises one or more updates storing one or more differences generated by the differencing engine wherein the one or more differences are in a first format. For example, these differences are stored in a first format (e.g., MySQL).
- 72. The Ubisoft system comprises a translator that converts any differences destined for the client copy of the at least a portion of the data store from the first

format into a second format. For example, differences are translated from the generic format (e.g., MySQL) to a specific format compatible with the database of the client (e.g., game files, such as GRW.exe).

- 73. The Ubisoft system comprises a communication network. For example, Ubisoft's system requires the use of a communication network.
- 74. The Ubisoft system comprises a synchronizer that obtains from the differencing engine any differences that are needed to make the one or more client copies of the at least a portion of the data store current, and transmits the differences to the one or more client copies of the at least a portion of the data store by way of the communication network. For example, instructions are transmitted to the client computer to update the client database table.
- 75. By making, using selling, and offering a system for distributing differences corresponding to one or more change events, Ubisoft is infringing the claims of the '236 Patent, including but not limited to claim 1. Ubisoft has committed these acts of infringement without license or authorization.
- 76. Ubisoft has injured PDS and is liable to PDS for direct and indirect infringement of the claims of the '236 Patent pursuant to 35 U.S.C. § 271(a), (b), and (c).
- 77. As a result of Defendant's infringement of the '236 Patent, PDS has suffered harm and seeks monetary damages in an amount adequate to compensate for infringement, but in no event less than a reasonable royalty for the use made of the invention by Ubisoft, together with interest and costs as fixed by the Court.

PRAYER FOR RELIEF

Plaintiff respectfully requests the following relief from the Court:

- 1. That Defendant has directly and indirectly infringed the Patents-in-Suit:
- 2. That Defendant be ordered to pay damages to PDS, together with costs, expenses, pre-judgment, interest and post-judgment interest as allowed by law;

1	3. That the Court enter judgment against Defendant, and in favor of PDS							
2	in all respects; and							
3	4. For any such other and further relief as the Court deems just and							
4	equitable.							
5	JURY TRIAL DEMANDED							
6	Pursuant to Rule 38 of the Federal Rules of Civil Procedure, PDS requests a trial							
7	by jury of any issues so triable by right.							
8								
9	Dated: February 8, 2018							
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11	Respectfully submitted,							
12	/s/ Ryan E. Hatch							
13	Ryan E. Hatch (CA SB No. 235577)							
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