

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE**

PURE DATA SYSTEMS, LLC,

Plaintiff,

v.

SPOTIFY USA INC.,

Defendant.

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Civil Action No.

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 Spotify USA Inc. (“Spotify” or “Defendant”).

BACKGROUND

1. PDS is the assignee of all right, title, and interest in and to U.S. Patent No. 5,999,947, entitled “Distributing Database Differences Corresponding to Database Change Events Made to a Database Table Located on a Server Computer” (“the ‘947 Patent,” attached as Exhibit A), and U.S. Patent No. 6,321,236 (“the ‘236 Patent,” attached as Exhibit B) (same title) (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 for solving 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 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 a 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. *See, e.g.*, '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 typically requires large amounts of bandwidth, is expensive, and is time consuming. *See, e.g.*, '947 Patent, col. 2, lines 1-8; '236 Patent, col. 2, lines 5-12. Without the claimed inventions, another drawback to the prior art is the need to make dynamic comparisons of the client and original database, which require large amounts of handshaking and data transfer. *See, e.g.*, '947 Patent, col. 2, lines 9-17; '236 Patent, col. 2, lines 13-21.

4. The technology described and inventions claimed in the Patents-in-Suit present 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 are ubiquitous today and have been widely adopted by leading businesses, at the time of the invention, the technologies were innovative at the time they were invented.

5. For example, during prosecution of the application that ultimately issued as the '947 Patent, the Examiner at the United States Patent and Trademark Office ("USPTO") 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." 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.

6. As another example, during prosecution of the application that ultimately issued as the '947 Patent, the USPTO Examiner also attempted to apply U.S. Patent No. 5,634,052 ("Morris") to 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 in question.

7. As another example, during prosecution of the application that ultimately issued as the '236 Patent, the USPTO Examiner attempted to apply U.S. Patent No. 5,870,765 ("Bauer") to the pending claims. The applicant distinguished the pending claims by explaining,

among other things, that the claims in question are directly opposed to the disclosure of the Bauer patent.

8. The claims of the Patents-in-Suit are not directed to a “method of organizing 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.

9. Additionally, the technology claimed in the Patents-in-Suit does not 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 and 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 the practice of all or 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 a 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, Spotify 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, Spotify is a Delaware Corporation headquartered at 45 W. 18th Street, 7th Floor, New York, New York 10011. Spotify may be served with process by delivering a summons and a true and correct copy of this Complaint to its registered agent for service of process, National Registered Agents, Inc., 160 Greentree Drive, Suite 101, Dover, DE 19904.

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 Spotify because, among other reasons, Spotify has established minimum contacts with the forum state of Delaware.

16. Venue is proper in this District under 1400(b) because Spotify has committed acts of patent infringement in this District and is a corporation existing and established under the laws of the state of Delaware.

COUNT I

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

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

18. On December 7, 1999, the United States Patent and Trademark Office issued the '947 Patent for inventions covering a method of distributing database differences. In one claimed

embodiment (*see, e.g.*, Claim 6), the '947 Patent recites 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 hereto as Exhibit A and incorporated by reference.

19. Spotify has been and is now infringing one or more claims of the '947 Patent, in this judicial District and elsewhere in the United States.

20. For example, Spotify infringes by virtue of providing or facilitating song library updates. If a user modifies her song library using a desktop computer connected to the internet via a web browser, the user's library is updated on a Spotify server. When the user next uses her computer to access the Spotify desktop client or a mobile device to access the Spotify mobile app, those updates are transmitted to the desktop client running on the user's computer or to the mobile app running on the user's mobile device.

21. Spotify infringes at least Claim 6 of the '947 Patent by practicing a method of distributing database differences corresponding to database change events.

22. Spotify 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.¹ For example, Spotify employs a method of distributing database change events from a server to a client when updating a user's song library through the Spotify app.

23. Spotify stores database differences at the server computer in a generic format. For example, database differences (e.g., changes to a user's song library) are stored in a generic format (e.g., Cassandra, Hadoop, or PostgreSQL) at a Spotify server computer.

24. Spotify 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 (e.g., desktop computer, laptop computer, tablet, smartphone) is received to update the client copy of the database table (e.g., the list of songs in a user's song library).

25. Spotify 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., Cassandra, Hadoop, or PostgreSQL) to a specific format compatible with the database of the client (e.g., a local file containing playlists or library contents, such as "player-state," "local-files.bnk," "watch-sources.bnk," "recently-played.bnk," "mercury.db-wal," index.dat," "metadata_cache.bnk," or one of various "collection-..." files).

26. Spotify 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 (e.g., desktop computer, laptop computer, tablet, smartphone) to update the client database table.

¹ Plaintiff does not hereby admit or concede that the preamble of Claim 6 or any other asserted claim constitutes a substantive limitation. That issue is expressly reserved for the claim construction phase of the litigation.

27. By practicing this method for distributing differences corresponding to one or more change events, Spotify is infringing one or more claims of the '947 Patent, including but not limited to Claim 6. Spotify has committed these acts of infringement without license or authorization.

28. Spotify has injured PDS and is liable to PDS for infringement of the claims of the '947 Patent pursuant to, at a minimum, 35 U.S.C. § 271(a).

29. 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 Spotify's infringement, but in no event less than a reasonable royalty for the use made of the inventions by Spotify, together with interest and costs as fixed by the Court.

30. The above factual allegations, which allege that the accused system practices each and every method step of at least one claim, satisfy (and exceed) Plaintiff's pleading obligations as set forth in *Twombly*, *Iqbal*, and their progeny. As the Federal Circuit Court of Appeals clarified earlier this month, the plaintiff need only provide "fair notice":

The complaint specifically identified the three accused products ... and alleged that the accused products meet "each and every element of at least one claim of the '113 [or '509] Patent, either literally or equivalently." These disclosures and allegations are enough to provide VGH Solutions fair notice of infringement of the asserted patents. The district court, therefore, erred in dismissing Disc Disease's complaint for failure to state a claim.

Disc Disease Solutions Inc. v. VGH Solutions, Inc. et al., 2018 U.S. App. LEXIS 11231, *8 (Fed. Cir. May 1, 2018) (brackets in original) (internal citations omitted); *see also* Fed. R. Civ. P. 8(a)(2) (Rule 8(a)(2) requires nothing more than "a short and plain statement of the claim showing that the pleader is entitled to relief"); *DermaFocus LLC v. Ulthera, Inc.*, C.A. No. 15-654-SLR, 2016 U.S. Dist. LEXIS 106484, at *5 (D. Del. Aug. 11, 2016) (a complaint need only provide "reasonable notice under the circumstances").

COUNT II

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

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

32. On November 20, 2001, the USPTO issued the '236 Patent for inventions covering a system for distributing database differences. One claimed embodiment (Claim 1) 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 hereto as Exhibit B and incorporated by reference.

33. Spotify has been and is now infringing one or more claims of the '236 Patent, in this judicial District and elsewhere in the United States.

34. For example, Spotify infringes by virtue of providing or facilitating song library updates. If a user modifies her song library using a desktop computer connected to the internet via a web browser, the user's library is updated on a Spotify server. When the user next uses her computer to access the Spotify desktop client or a mobile device to access the Spotify mobile app, those updates are transmitted to the desktop client running on the user's computer or to the mobile app running on the user's mobile device.

35. For example, Spotify infringes at least Claim 1 of the '236 Patent by making, using, selling, and offering for sale a system for distributing differences corresponding to one or more change events, according to the claims of the '236 Patent.

36. Spotify makes, uses, sells, and offers for sale 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, Spotify makes, uses, sells, and offers for sale a system for distributing data store change events from Spotify's server to a client (such as a mobile device) when updating a user's song library from the Spotify server.

37. The Spotify 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 song is purchased, that song is added to a user's library. This difference is detected by the server as a change from the previous library.

38. The Spotify 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., Cassandra, Hadoop, or PostgreSQL) to a second format compatible with the data store of the client (e.g., a local file containing playlists or library contents, such as "player-state," "local-files.bnk," "watch-sources.bnk," "recently-played.bnk," "mercury.db-wal," "index.dat," "metadata_cache.bnk," or one of various "collection-..." files).

39. The Spotify system comprises a communication network. For example, Spotify requires the use of a communication network (e.g., Wi-Fi or LTE).

40. The Spotify 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 (e.g., a local file containing playlists or library contents, such as "player-state," "local-files.bnk," "watch-sources.bnk," "recently-played.bnk," "mercury.db-wal," "index.dat," "metadata_cache.bnk," or one of various "collection-..." files).

41. By making, using selling, and offering a system for distributing differences corresponding to one or more change events, Spotify is infringing the claims of the '236 Patent, including but not limited to Claim 1. Spotify has committed these acts of infringement without license or authorization.

42. Spotify has injured PDS and is liable to PDS for infringement of the claims of the '236 Patent pursuant to, at a minimum, 35 U.S.C. § 271(a).

43. 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 Spotify, together with interest and costs as fixed by the Court.

44. The above factual allegations, which allege that the accused system practices and satisfies each and every limitation of at least one claim, satisfy (and exceed) Plaintiff's pleading obligations as set forth in *Twombly*, *Iqbal*, and their progeny. As the Federal Circuit Court of Appeals clarified earlier this month, the plaintiff need only provide "fair notice":

The complaint specifically identified the three accused products ... and alleged that the accused products meet "each and every element of at least one claim of the '113 [or '509] Patent, either literally or equivalently." These disclosures and allegations are enough to provide VGH Solutions fair notice of infringement of the asserted patents. The district court, therefore, erred in dismissing Disc Disease's complaint for failure to state a claim.

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PRAYER FOR RELIEF

Plaintiff respectfully requests from the Court the following relief:

1. A finding that Defendant has infringed the Patents-in-Suit;
2. A finding that Defendant shall provide to Plaintiff an accounting;

3. A finding that Defendant be ordered to pay damages to PDS, together with costs, expenses, pre-judgment, interest and post-judgment interest at the maximum rate allowable by law;

4. That the Court enter judgment against Defendant and in favor of PDS in all respects; and

5. For any such other and further relief as the Court deems just and equitable.

JURY TRIAL DEMANDED

Pursuant to Rule 38 of the Federal Rules of Civil Procedure, PDS requests a trial by jury of any issues so triable by right.

Dated: May 18, 2018

Respectfully submitted,

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