RYAN E. HATCH (SBN 235577)
LAW OFFICE OF RYAN E. HATCH, PC
13323 Washington Blvd., Suite 100
Los Angeles, CA 90066
Work: 310-279-5076
Mobile: 310-435-6374
Fax: 310-693-5328
Ryan@ryanehatch.com

Attorney for Plaintiff
Pure Data Systems, LLC

UNITED STATES DISTRICT COURT FOR THE EASTERN DISTRICT OF TEXAS THE TYLER DIVISION

PURE DATA SYSTEMS, LLC

Plaintiff,

V.

GANNETT CO., INC; GANNETT SATELLITE INFORMATION NETWORK, LLC d/b/a USA TODAY; USA TODAY SPORTS MEDIA GROUP, LLC

Defendants,

Civil Action No. 6:17-cv-208

FIRST AMENDED COMPLAINT

STRUCT AMENDED COMPLAINT

PROPRIED COMPLAINT

STRUCT AMENDED COMPLAINT

PROPRIED COMPLAINT

STRUCT AMENDED COMPLAINT

STRUCT AMENDED COMPLAINT

STRUCT AMENDED COMPLAINT

PROPRIED COMPLAINT

STRUCT AMENDED COMPLAIN

FIRST AMENDED 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 Defendants Gannett Co., Inc, Gannett Satellite Information Network, LLC, USA Today Sports Media Group, LLC ("Defendants").

BACKGROUND

1. Plaintiff PDS is the assignee of all right, title, and interest in and to U.S.

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28

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 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

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28

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 to Buchanan to the pending claims. The applicants explained that Applicant further argued 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 bi-directional 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.
- 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 to 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.

2

3

4

5

6

7

8

9

21

22

23

24

25

26

27

28

- 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 to 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.
- 8. The claims of the '701 Patent 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 Defendants 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 Defendants, 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, Defendants are infringing the claims of the Patents-in-Suit.

PARTIES

12. PDS is a Texas Limited Liability Company with a principal place of

2

3

4

5

6

7

8

9

10

11

12

22

23

24

25

26

27

28

business at 1400 Preston Road, Suite 400, Plano, Texas 75093.

- 13. On information and belief, Gannett Co., Inc is a Delaware Limited Liability Company headquartered at 7950 Jones Branch Dr, Mclean, VA 22107. Gannett Co., Inc may be served with process by delivering a summons and a true and correct copy of this First Amended Complaint to the registered agent for receipt of service of process, CT Corporation System, 1999 Bryan St., Suite 900, Dallas, Texas, 75201-3136.
- 14. On information and belief, Gannett Satellite Information Network, LLC does business as USA TODAY, and is a Delaware Limited Liability Company headquartered at 7950 Jones Branch Dr., Mclean, VA 22107. Gannett Satellite Information Network, LLC d/b/a USA TODAY may be served with process by delivering a summons and a true and correct copy of this First Amended Complaint to the registered agent for receipt of service of process, CT Corporation System, 1999 Bryan St., Suite 900, Dallas, Texas, 75201-3136.
- On information and belief, USA Today Sports Media Group, LLC is a 15. Delaware Limited Liability Company headquartered at 7950 Jones Branch Dr., Mclean, VA 22107. USA Sports Media Group, LLC may be served with process by delivering a summons and a true and correct copy of this First Amended Complaint to the registered agent for receipt of service of process, CT Corporation System, 4701 Cox Road, Suite 285, Glen Allen, VA 23060

JURISDICTION AND VENUE

This action arises under the patent laws of the United States, Title 35 of 16.

9

10

> 16 17 18

15

20 21

19

22 23 24

25 26

27 28 the United States Code. Accordingly, this Court has subject matter jurisdiction under 28 U.S.C. §§ 1331 and 1338(a).

- 17. This Court has personal jurisdiction over Defendants because, among other reasons, Defendants have established minimum contacts with the forum state of Texas. For example, Defendants maintain a place of business at 3900 W Plano Pkwy, Plano, TX 75075. Defendants have purposefully availed itself of the benefits of doing business in the State of Texas and the exercise of jurisdiction over Defendants would not offend traditional notions of fair play and substantial justice.
- Venue is proper in this District under 28 U.S.C. §§ 1391 (b)-(c) and 18. 1400(b) because Defendants are subject to personal jurisdiction in this District, have transacted business in this district and have committed acts of patent infringement in this District.

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

- Plaintiff incorporates by reference each of the allegations in the 19. foregoing paragraphs, and further alleges as follows:
- 20. 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, 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

2

3

4

5

6

7

8

9

10

11

22

23

24

25

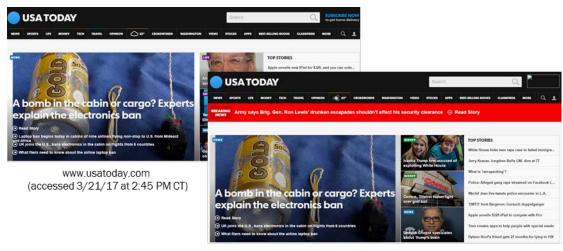
26

27

28

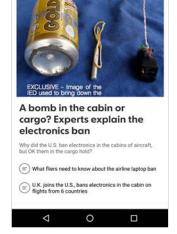
copy of the database table current; translating the differences from the generic format into instructions having a specific format compatible with the type of database engine associated with the client copy of the database table; and transmitting the instructions to the client computer for execution on the client database engine to make the client copy of the database table current.. A true and correct copy of the '304 Patent is attached as Exhibit A.

- 21. Defendants have been and are now directly and indirectly infringing one or more claims of the '947 Patent, in this judicial District and elsewhere in the United States.
- 22. For example, Defendants directly infringe 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.
- 23. For example, Defendants distribute 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, Defendants distribute database change events from a server to a client when updates to the news feed are distributed to personal computers accessing the Defendants website (e.g., www.usatoday.com) and mobile devices with the USA Today app, e.g.:



www.usatoday.com (accessed 3/21/17 at 3:35 PM CT)





(accessed 3/21/17 at 1:40PM CT)

USA Today app (accessed 3/21/17 at 3:22PM CT)

Defendants store database differences at the server computer in a generic 24. format. For example, database differences are stored in a generic format (e.g., SQL) at a Defendants server computer, e.g.:

GANNETT | USATODAY NETWORK

About the lob

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28

NoSQL Data Engineer

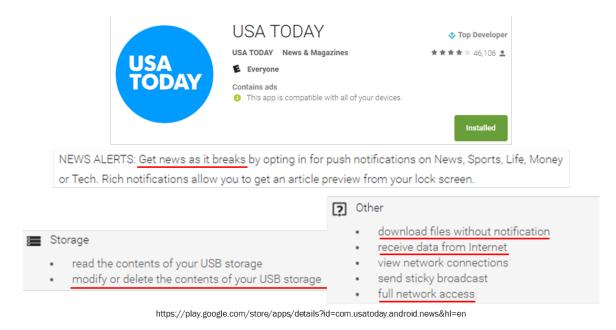
This position plays an integral role defining and architecting how data tier technologies are implemented for digital media products at the USA TODAY NETWORK. The candidate will collaborate with product, feature, and application development teams to recommend, architect, implement, and scale the data tier solutions that reach over 100 million people monthly through the USA TODAY NETWORK. This position reports to the Director of Database Management and is based at the company headquarters in McLean, Virginia

Responsibilities

- Hands-on participation on database development and implementation tasks for current projects including embedding with application or feature
- · Architect and design data tier features in a hybrid cloud environment.
- · Advise and collaborate on data tier issues for new and existing products
- Technical evaluation and hands-on prototyping new solutions including cost analysis and lifecycle support. Must-have Technical Skills
 4+ years as a Data or Software Engineer with proven experience supporting a public-facing website or e-commerce site.
- Proven experience in one or more NoSQL Document Store databases such as Couchbase, CouchDB, DocumentDB, MarkLogic, or MongoDB
- Strong, proven knowledge of one or more relational database systems such as MySQL, PostgreSQL, Oracle, or SQL Server.
- Experience with high availability, scalability, and disaster recovery solutions.
- Experience with monitoring technologies such as Splunk and New Relic
- · Excellent written and verbal communication skills with the ability to effectively communicate with stakeholders to drive consensus on data tier

https://850.dayforcehcm.com/CandidatePortal/en-US/gannett/Posting/View/2478?jobPipeline=Indeed

25. Defendants receive 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., a smartphone with the USA Today app or a PC accessing the USA Today website) is received to update the client copy of the database (e.g., the locally stored XML or HTML files on the smartphone or PC), e.g.:



2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28

Defendants translate the differences from the generic format into 26. 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., SQL) to a specific format compatible with the database of the client (e.g., XML files of the USA Today app), e.g.:

Parsing XML Data

Extensible Markup Language (XML) is a set of rules for encoding documents in machinereadable form. XML is a popular format for sharing data on the internet. Websites that frequently update their content, such as news sites or blogs, often provide an XML feed so that external programs can keep abreast of content changes. Uploading and parsing XML data is a common task for network-connected apps. This lesson explains how to parse XML documents and use their data.

https://developer.android.com/training/basics/network-ops/xml.html

1 KB
1 KB
2 KB
3 KB
2 KB
3 KB
1 KB
6 KB

Screenshot of example XML files extracted from the USA Today Android APK located in \res\layout).

27. Defendants transmit 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, e.g.:

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28

28. By practicing a system for distributing differences corresponding to one or more change events, Defendants are infringing the claims of the '947 Patent, including but not limited to claim 6. Defendants have committed these acts of infringement without license or authorization.

- 29. Defendants have injured PDS and are 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).
- 30. As a result of Defendants' 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 Defendants, together with interest and costs as fixed by the Court.

COUNT II

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

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28

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

32. 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.

33. Defendants have been and are now directly and indirectly infringing one

1

7

8

11

12 13

14

15 16 17

> 18 19

20

21 22

23

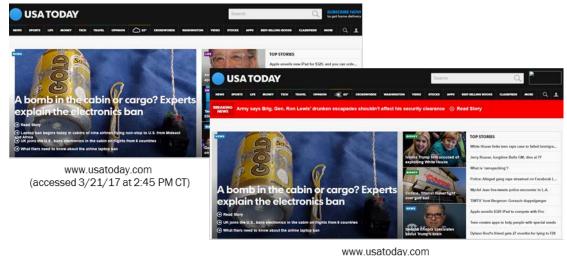
24 25

26 27

28

or more claims of the '236 Patent, in this judicial District and elsewhere in the United States.

- For example, Defendants directly infringe the '236 Patent, including but 34. not limited to claim 1, by practicing a system for distributing differences corresponding to one or more change events, according to the claims of the '236 Patent.
- 35. Defendants make, use and offer 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, Defendants make, use and offer a system for distributing database change events from a server to a client. Updates to the news feed are distributed to personal computers accessing the Defendants' website (e.g., www.usatoday.com) and mobile devices with the USA Today app, e.g.:



(accessed 3/21/17 at 3:35 PM CT)

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

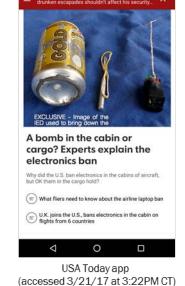
24

25

26

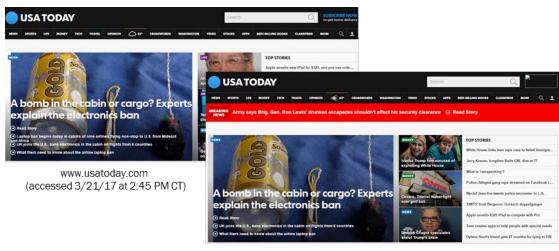
27

28



(accessed 3/21/17 at 1:40PM CT)

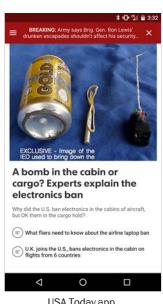
36. The Defendants system comprises a current server version of the data store configured to permit modifications to data contained therein; a reference server version of the data store; a differencing engine that identifies, at a given instance in time, any differences between the current server version of the data store and the reference server version of the data store. For example, Defendants' system detects differences between current and reference versions of a data store (e.g., stories under the "Money" header), e.g.:



www.usatoday.com (accessed 3/21/17 at 3:35 PM CT)



(accessed 3/21/17 at 1:40PM CT)



USA Today app (accessed 3/21/17 at 3:22PM CT)

37. The Defendants' 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, the updates contain differences stored in a first format (e.g., SQL), e.g.:

CANINETT	USA TODAY NETWORK
GANNETT	USA TODAY NETWORK

About the lob

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28

NoSQL Data Engineer

This position plays an integral role defining and architecting how data tier technologies are implemented for digital media products at the USA TODAY NETWORK. The candidate will collaborate with product, feature, and application development teams to recommend, architect, implement, and scale the data tier solutions that reach over 100 million people monthly through the USA TODAY NETWORK. This position reports to the Director of Database Management and is based at the company headquarters in McLean, Virginia.

- · Hands-on participation on database development and implementation tasks for current projects including embedding with application or feature teams
- · Architect and design data tier features in a hybrid cloud environment.
- · Advise and collaborate on data tier issues for new and existing products
- Technical evaluation and hands-on prototyping new solutions including cost analysis and lifecycle support. Must-have Technical Skills
- 4+ years as a Data or Software Engineer with proven experience supporting a public-facing website or e-commerce site.
 Proven experience in one or more NoSQL Document Store databases such as Couchbase, Couchbase, DocumentDB, MarkLogic, or MongoDB.
- · Strong, proven knowledge of one or more relational database systems such as MySQL, PostgreSQL, Oracle, or SQL Server.
- Experience with high availability, scalability, and disaster recovery solutions.
- Experience with monitoring technologies such as Splunk and New Relic
- Excellent written and verbal communication skills with the ability to effectively communicate with stakeholders to drive consensus on data tier

https://850.dayforcehcm.com/CandidatePortal/en-US/gannett/Posting/View/2478?jobPipeline=Indeed

38. The Defendants' 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, the differences are translated into a format destined for a client copy (e.g., XML), e.g.:

Parsing XML Data

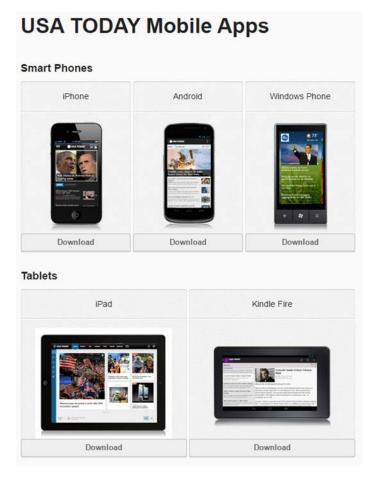
Extensible Markup Language (XML) is a set of rules for encoding documents in machinereadable form, XML is a popular format for sharing data on the internet. Websites that frequently update their content, such as news sites or blogs, often provide an XML feed so that external programs can keep abreast of content changes. Uploading and parsing XML data is a common task for network-connected apps. This lesson explains how to parse XML documents and use their data.

https://developer.android.com/training/basics/network-ops/xml.html

article_body_sponsor_disclaimer_text_view	3/21/2017 2:18 PM	XML Document	1 KB
article_bottom_timestamp	3/21/2017 2:18 PM	XML Document	1 KB
article_gallery_asset	3/21/2017 2:18 PM	XML Document	2 KB
article_gallery_asset_inline	3/21/2017 2:18 PM	XML Document	3 KB
article_image_asset_inline	3/21/2017 2:18 PM	XML Document	2 KB
article_video_asset_inline	3/21/2017 2:18 PM	XML Document	3 KB
articles_pager	3/21/2017 2:18 PM	XML Document	1 KB
asset_landing_page	3/21/2017 2:18 PM	XML Document	6 KB

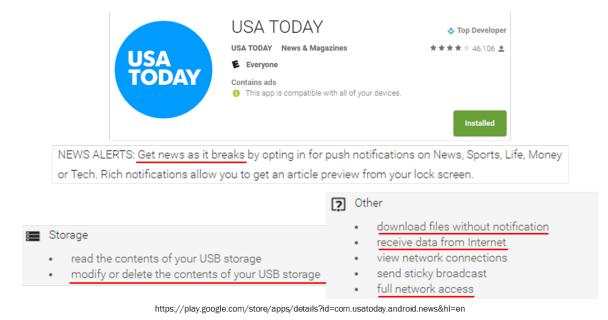
Screenshot of example XML files extracted from the USA Today Android APK located in \res\layout).

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



http://www.usatoday.com/mobile-apps/

40. The Defendants system comprises a synchronizer that obtains from the
differencing engine any differences that are needed to make the one or more clien
copies of the at least a portion of the data store current, and transmit 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., for new news articles) are
transmitted to the client for execution to update the client database (e.g., XML). The
USA Today app receives updates to the news feed and displays them on the mobile
device, e.g.:



By making, using and offering a system for distributing differences 41. corresponding to one or more change events, Defendants are infringing the claims of the '236 Patent, including but not limited to claim 1. Defendants have committed these

3

1

4 5

7 8

9

6

10 11

12 13

14

15

16 17

> 18 19

20 21

22

23

24 25

26 27

28

acts of infringement without license or authorization.

- 42. Defendants have injured PDS and are 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).
- As a result of Defendants' infringement of the '236 Patent, PDS has 43. 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 Defendants, together with interest and costs as fixed by the Court.

PRAYER FOR RELIEF

Plaintiff respectfully requests the following relief from the Court:

- That Defendants have directly and indirectly infringed the Patents-in-1. Suit:
- 2. That Defendants be ordered to pay damages to PDS, together with costs, expenses, pre-judgment, interest and post-judgment interest as allowed by law;
- 3. That the Court enter judgment against Defendants, and in favor of PDS in all respects; and
- 4. For any such other and further relief as the Court deems just and equitable.

JURY TRIAL DEMANDED

5. 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 3, 2017

Respectfully submitted,

/s/ Ryan E. Hatch

Ryan E. Hatch (CA SB No. 235577)

LAW OFFICE OF RYAN E. HATCH, PC

13323 Washington Blvd., Suite 100

Los Angeles, CA 90066

Work: 310-279-5076 Mobile: 310-435-6374 Fax: 310-693-5328

ryan@ryanehatch.com

Attorney for Plaintiff, *Pure Data Systems*, *LLC*