

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

**PURE DATA SYSTEMS, LLC**

**Plaintiff,**

v.

**FOX NEWS NETWORK, LLC, FOX  
BROADCASTING COMPANY, FOX  
SPORTS INTERACTIVE, AND TWENTY-  
FIRST CENTURY FOX, INC.**

**Defendants**

**Civil Action No. 6:17-cv-211**

**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 defendants Fox News Network, LLC (“Fox News”), Fox Broadcasting Company (“Fox Broadcasting”), Fox Sports Interactive (“Fox Sports”), and Twenty-First Century Fox, Inc. (“Twenty-First Century Fox”) (collectively, “Fox” or “Defendants”).

**BACKGROUND**

1. Plaintiff 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 claims of the Patents-in-Suit are directed to methods and systems for distributing database differences corresponding to change events made to data on a server computer to client copies of the data. The technologies recited in the claims of the Patents-in-Suit provide inventive concepts and do not claim any abstract idea.

3. 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.

4. For example, the inventions of the Patents-in-Suit 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 inventions further recite receiving a request from a client computer, which is also a hardware system. The claimed inventions further recite 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. The Patents-in-Suit teach that 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 requires large amounts of bandwidth, is expensive, and time consuming. (*See, e.g.*, '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. (*See, e.g.*, '947 Patent, col. 2, lines 9-17; '236 Patent, col. 2, lines 13-21.)

5. 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.

6. 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 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.

7. As another example, during prosecution of the application that issued as 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.

8. 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.

9. Additionally, 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.

10. 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.

11. 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. Furthermore, 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, which exist only in the context of computer-based systems and cannot be practiced by a human alone.

12. By practicing a system for distributing differences corresponding to one or more change events, Fox is infringing the claims of the Patents-in-Suit.

### **PARTIES**

13. PDS is a Texas Limited Liability Company with a principal place of business at 1400 Preston Road, Suite 400, Plano, Texas 75093.

14. Fox News is headquartered at 1211 Avenue of the Americas, New York, NY

10036. Fox News is registered to do business in the State of Texas and Fox News and it and the other Fox entities 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, C T Corporation System, 1999 Bryan St., Suite 900, Dallas, Texas, 75201-3136.

### **JURISDICTION AND VENUE**

15. 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).

16. This Court has personal jurisdiction over Fox because, among other reasons, Fox has established minimum contacts with the forum state of Texas. For example, Fox broadcasts news and other content on KXII-DT, 12.3, located at 4201 Texoma Pkwy Sherman, TX 75090 <http://www.kxii.com/station> and on Kfxk Fox 51, located at 701 N Access Rd, Longview, TX 75602. Fox also maintains an office at One Main Place, 1201 Main St #1360, Dallas, TX 75202. Fox has purposefully availed itself of the benefits of doing business in the State of Texas and the exercise of jurisdiction over Fox would not offend traditional notions of fair play and substantial justice.

17. Venue is proper in this District under 28 U.S.C. §§ 1391 (b)-(c) and 1400(b) because Fox is subject to personal jurisdiction in this District, has transacted business in this district and has committed acts of patent infringement in this District.

### **COUNT I** **INFRINGEMENT OF U.S. PATENT NO. 5,999,947**

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

19. 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 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.

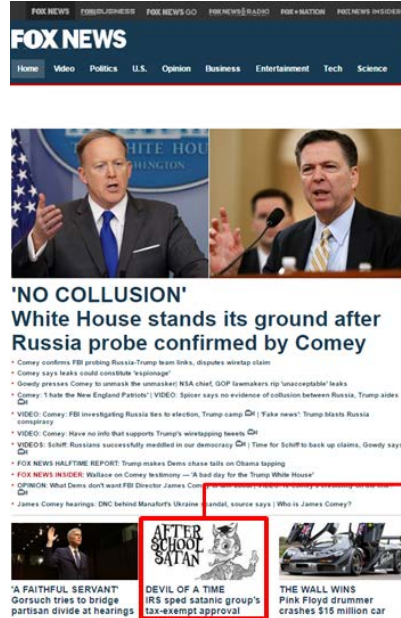
20. Fox has been and is now directly and indirectly infringing one or more claims of the '947 Patent, in this judicial District and elsewhere in the United States.

21. The following infringement analysis focuses on the Fox News app and website ([www.foxnews.com](http://www.foxnews.com)), but is representative of other Fox apps and websites which are accused and infringe for substantially the same reasons. The accused apps and websites include but not are limited to: the FOX NOW app and website ([www.fox.com](http://www.fox.com)), the FOX Sports app and website ([www.foxsports.com](http://www.foxsports.com)), the FOX Sports GO app and website ([www.foxsportsgo.com](http://www.foxsportsgo.com)), the representative FOX NEWS app and website ([www.foxnews.com](http://www.foxnews.com)).

22. For example, Fox 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.

23. For example, Fox 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

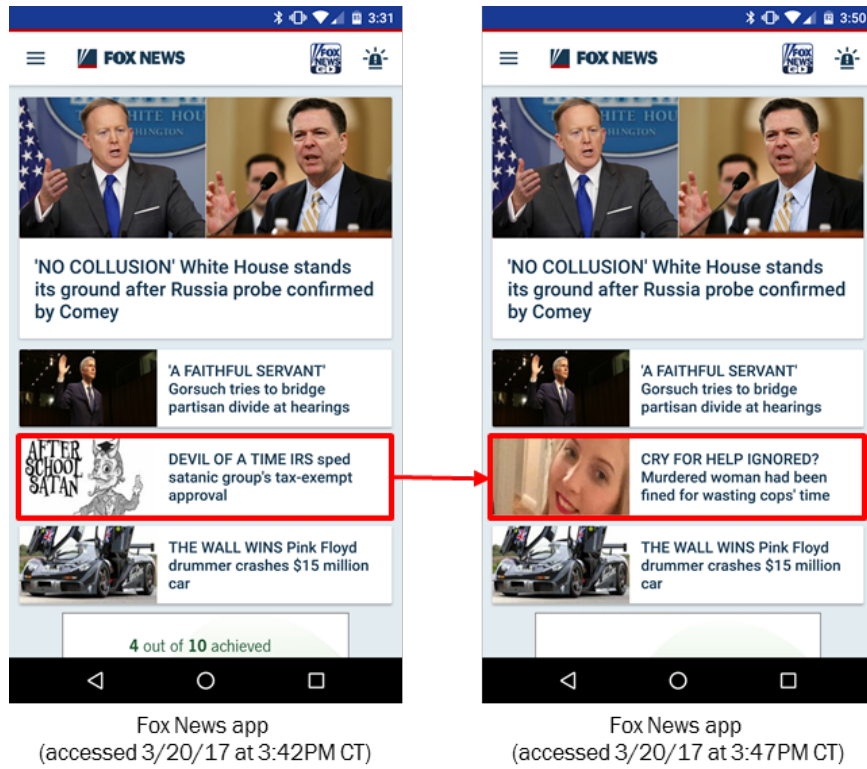
having different database engines. For example, Fox News distributes database change events from a server to a client when updates to the news feed are distributed to personal computers accessing a Fox News website (e.g., www.foxnews.com) and mobile devices with a Fox app (e.g., Fox News app), e.g.:



www.foxnews.com  
(accessed 3/20/17 at 3:42PM CT)



www.foxnews.com  
(accessed 3/20/17 at 3:47PM CT)



24. Fox stores database differences at the server computer in a generic format. For example, Fox News stores database differences in SQL at a Fox News server computer, e.g.:



**Mid-Level Database Administrator**

New York

Responsibilities:

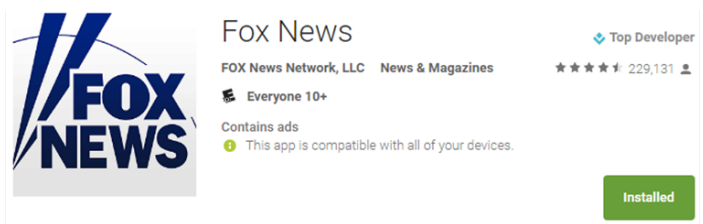
Working as an integral part of the Fox News Digital Operations team, our DBAs will be responsible for database administration and design tasks to support the back end infrastructure of Fox News' digital properties. Responsibilities include maintaining, upgrading new Oracle and MySQL databases that power development, QA and production environments, as well as building new databases to support new projects, and troubleshooting any database related issues that may arise. The ideal candidate must be a team player who has excellent communication skills and must be willing to support a fast paced 24x7 environment.

Duties include but not limited to:

- Providing core administration for development, QA and production database environments.
- Installation, configuration, upgrades to databases and database-related software utilities.
- Development and implementation of logical and physical database designs.
- Managing existing databases, capacity planning, upgrades, backup/recovery and performance tuning.
- Developing PL/SQL procedures and SQL queries, shell scripts and perl scripts for database administration.
- Monitoring existing databases and troubleshooting to resolve problems that may be application related and/or database related.
- Optimizing queries to improve response time and throughput and providing recommendations to the Unix and development teams.
- Performing functions to administer database access (e.g. setting up schemas, maintaining privileges and roles, maintaining passwords).
- Maintaining database diagrams and database documentation.

<http://www.foxnews.com/story/2008/11/25/employment-opportunities-with-fox-news.html>

25. Fox 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., a smartphone with a Fox News app or a PC accessing a Fox News 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.:



Follow dynamic, real-time reporting from Fox News in the enhanced apps for Android. Get comprehensive coverage of the day's hottest stories with Fox News alerts, Fair and Balanced headlines, live streaming video, vibrant photo galleries, and the latest video clips from your favorite shows on demand!

**Storage**

- read the contents of your USB storage
- modify or delete the contents of your USB storage

- receive data from Internet
- view network connections
- full network access
- run at startup
- prevent device from sleeping

<https://play.google.com/store/apps/details?id=com.foxnews.android&hl=en>

26. Fox 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., SQL) to a specific format compatible with the database of the client (e.g., XML files of the Fox News app), e.g.:

## Parsing XML Data

Extensible Markup Language (XML) is a set of rules for encoding documents in machine-readable 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>

item_article	3/20/2017 4:09 PM	XML Document	5 KB
item_article_image_view	3/20/2017 4:09 PM	XML Document	2 KB
item_bet_video	3/20/2017 4:09 PM	XML Document	2 KB
item_big_top_header	3/20/2017 4:09 PM	XML Document	3 KB
item_big_top_long_cardview	3/20/2017 4:09 PM	XML Document	5 KB
item_big_top_short_form	3/20/2017 4:09 PM	XML Document	3 KB
item_big_top_small_cardview	3/20/2017 4:09 PM	XML Document	4 KB
item_big_top_stream_promo	3/20/2017 4:09 PM	XML Document	2 KB
item_breaking_news	3/20/2017 4:09 PM	XML Document	3 KB
item_breaking_news_footer	3/20/2017 4:09 PM	XML Document	1 KB
item_breaking_news_header	3/20/2017 4:09 PM	XML Document	2 KB

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

27. Fox 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, e.g.:



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

29. Fox 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).

30. 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 Fox, together with interest and costs as fixed by the Court.

## **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 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. Fox 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.

34. For example, Fox directly infringes the '236 Patent, including but 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. The following infringement analysis focuses on the Fox News app and website ([www.foxnews.com](http://www.foxnews.com)), but is representative of other Fox apps and websites which are accused and infringe for substantially the same reasons. The accused apps and websites include but not are limited to: the FOX NOW app and website ([www.fox.com](http://www.fox.com)), the FOX Sports app and website ([www.foxsports.com](http://www.foxsports.com)), the FOX Sports GO app and website ([www.foxsportsgo.com](http://www.foxsportsgo.com)), the representative FOX NEWS app and website ([www.foxnews.com](http://www.foxnews.com)).

36. Fox makes, uses 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, Fox makes, uses and offers a system for distributing database change events from a server to a client. Updates to the news feed are distributed to personal computers accessing a Fox website (e.g., [www.foxnews.com](http://www.foxnews.com)) and mobile devices with a Fox app (e.g., Fox News app), e.g.:



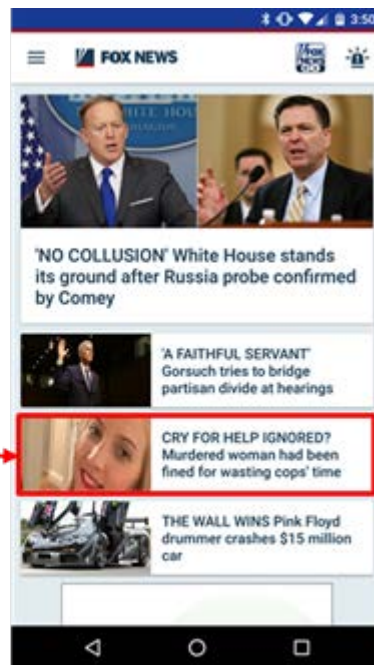
www.foxnews.com  
(accessed 3/20/17 at 3:42PM CT)



www.foxnews.com  
(accessed 3/20/17 at 3:47PM CT)



Fox News app  
(accessed 3/20/17 at 3:42PM CT)



Fox News app  
(accessed 3/20/17 at 3:47PM CT)

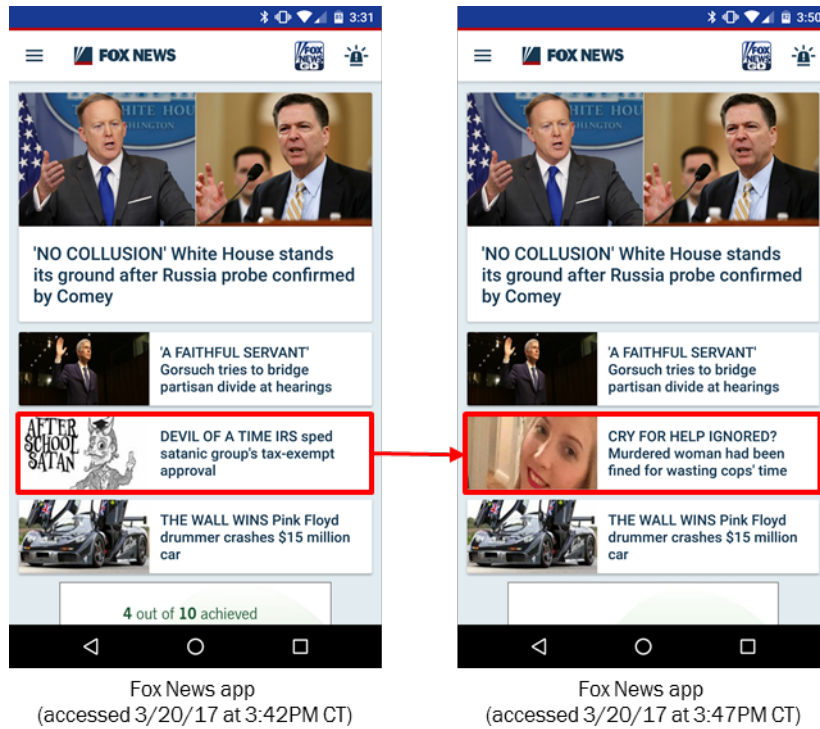
37. The Fox system comprises a current server version of the data store configured to permit modifications to data contained therein; a reference server version of the data store; a differencing engine that identifies, at a given instance in time, any differences between the current server version of the data store and the reference server version of the data store. For example, Fox News’s system detects differences between current and reference versions of a data store (e.g., stories under the “Home” header), e.g.:



www.foxnews.com  
(accessed 3/20/17 at 3:42PM CT)



www.foxnews.com  
(accessed 3/20/17 at 3:47PM CT)



38. The Fox 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.:



**Mid-Level Database Administrator**

New York

Responsibilities:

Working as an integral part of the Fox News Digital Operations team, our DBAs will be responsible for database administration and design tasks to support the back end infrastructure of Fox News' digital properties. Responsibilities include maintaining, upgrading new Oracle and MySQL databases that power development, QA and production environments, as well as building new databases to support new projects, and troubleshooting any database related issues that may arise. The ideal candidate must be a team player who has excellent communication skills and must be willing to support a fast paced 24x7 environment.

Duties include but not limited to:

Providing core administration for development, QA and production database environments.

Installation, configuration, upgrades to databases and database-related software utilities.

Development and implementation of logical and physical database designs.

Managing existing databases, capacity planning, upgrades, backup/recovery and performance tuning.

Developing PL/SQL procedures and SQL queries, shell scripts and perl scripts for database administration.

Monitoring existing databases and troubleshooting to resolve problems that may be application related and/or database related.

Optimizing queries to improve response time and throughput and providing recommendations to the Unix and development teams.

Performing functions to administer database access (e.g. setting up schemas, maintaining privileges and roles, maintaining passwords).

Maintaining database diagrams and database documentation.












<http://www.foxnews.com/story/2008/11/25/employment-opportunities-with-fox-news.html>

39. The Fox 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

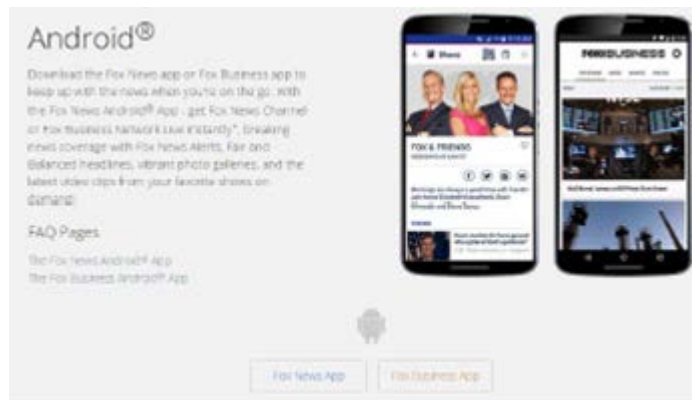
Extensible Markup Language (XML) is a set of rules for encoding documents in machine-readable form. XML is a popular format for sharing data on the internet. Websites that frequently update their content, such as news sites or blogs, often provide an XML feed so that external programs can keep abreast 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>

 <a href="#">item_article</a>	3/20/2017 4:09 PM	<a href="#">XML Document</a>	5 KB
 <a href="#">item_article_image_view</a>	3/20/2017 4:09 PM	XML Document	2 KB
 <a href="#">item_bet_video</a>	3/20/2017 4:09 PM	XML Document	2 KB
 <a href="#">item_big_top_header</a>	3/20/2017 4:09 PM	XML Document	3 KB
 <a href="#">item_big_top_long_cardview</a>	3/20/2017 4:09 PM	XML Document	5 KB
 <a href="#">item_big_top_short_form</a>	3/20/2017 4:09 PM	XML Document	3 KB
 <a href="#">item_big_top_small_cardview</a>	3/20/2017 4:09 PM	XML Document	4 KB
 <a href="#">item_big_top_stream_promo</a>	3/20/2017 4:09 PM	XML Document	2 KB
 <a href="#">item_breaking_news</a>	3/20/2017 4:09 PM	XML Document	3 KB
 <a href="#">item_breaking_news_footer</a>	3/20/2017 4:09 PM	XML Document	1 KB
 <a href="#">item_breaking_news_header</a>	3/20/2017 4:09 PM	XML Document	2 KB

40. The Fox system comprises a communication network. For example, Fox News's system requires the use of a communication network (e.g., Wi-Fi or LTE), e.g.:





<http://www.foxnews.com/apps-products/index.html>

41. The Fox 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., for new news articles) are transmitted to the client for execution to update the client database (e.g., XML). The Fox News app receives updates to the news feed and displays them on the mobile device. E.g.:



Follow dynamic, real-time reporting from Fox News in the enhanced apps for Android. Get comprehensive coverage of the day's hottest stories with Fox News alerts, Fair and Balanced headlines, live streaming video, vibrant photo galleries, and the latest video clips from your favorite shows on demand!

**Storage**

- read the contents of your USB storage
- modify or delete the contents of your USB storage

- receive data from Internet
- view network connections
- full network access
- run at startup
- prevent device from sleeping

<https://play.google.com/store/apps/details?id=com.foxnews.android&hl=en>

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

43. Fox 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).

44. 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 Fox, together with interest and costs as fixed by the Court.

**PRAYER FOR RELIEF**

Plaintiff respectfully requests the following relief from the Court:

1. That Defendants has directly and indirectly infringed the Patents-in-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: April 10, 2017

Respectfully submitted,

/s/ Ryan E. Hatch

Ryan E. Hatch (CA SB No. 235577)  
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Attorney for Plaintiff,  
*Pure Data Systems, LLC*