UNITED STATES DISTRICT COURT
IN THE WESTERN DISTRICT OF TEXAS
WACO DIVISION

DATA SCAPE LIMITED, Plaintiff, v. IHEARTMEDIA, INC., Defendant.	C.A. No. 6:19-cv-00483 **JURY TRIAL DEMANDED**

COMPLAINT FOR PATENT INFRINGEMENT

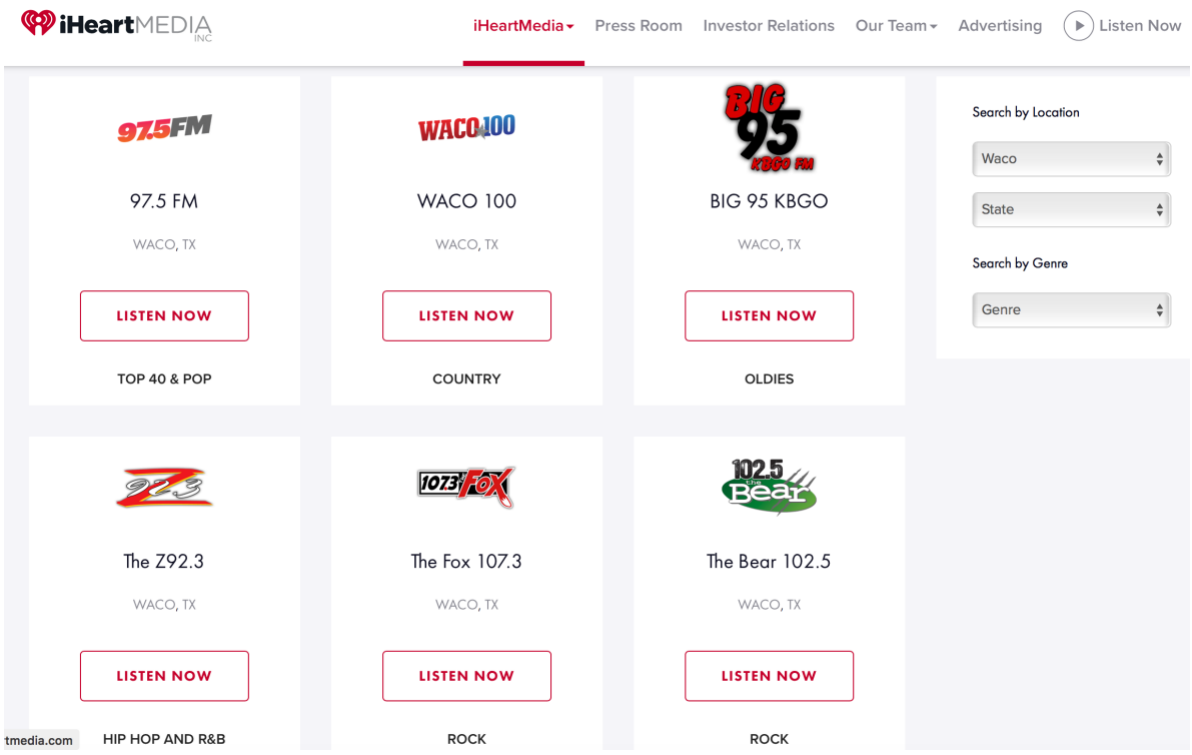
This is an action for patent infringement arising under the Patent Laws of the United States of America, 35 U.S.C. § 1 *et seq.* in which plaintiff Data Scape Limited ("Plaintiff," "Data Scape") makes the following allegations against defendant iHeartMedia, Inc. ("Defendant"):

PARTIES

1. Data Scape is a company organized under the laws of Ireland with its office located at Office 115, 4-5 Burton Hall Road, Sandyford, Dublin 18, Ireland.

2. On information and belief, Defendant iHeartMedia, Inc. ("iHeartMedia" or "Defendant") is a Delaware corporation with its principal office at 200 East Basse Road, San Antonio, Texas 78209. On information and belief, iHeartMedia maintains stations

within this District. For example, iHeartMedia has radio stations in Waco, Texas



See https://www.iheartmedia.com/iheartmedia/stations?city=Waco. On information and belief, iHeartMedia can be served through its registered agent, The Corporation Trust Company, 1209 Orange St., Wilmington, DE 19801.

JURISDICTION AND VENUE

3. This action arises under the patent laws of the United States, Title 35 of the United States Code. This Court has original subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a).

4. This Court has personal jurisdiction over Defendant in this action because Defendant has committed acts within the Western District of Texas giving rise to this action and has established minimum contacts with this forum such that the exercise of jurisdiction over Defendant would not offend traditional notions of fair play and substantial justice. Defendant, directly and through subsidiaries or intermediaries, has committed and

continues to commit acts of infringement in this District by, among other things, offering to sell and selling products and/or services that infringe the asserted patents.

5. Venue is proper in this district under 28 U.S.C. § 1400(b). Defendant has established places of business in the Western District of Texas. Defendant is registered to do business in Texas. Upon information and belief, Defendant has transacted business in this District and has committed acts of direct and indirect infringement in this District.

ASSERTED PATENTS

6. Data Scape is the owner by assignment of United States Patent No. 10,277,675 ("the '675 Patent"), entitled "Communication System And Its Method and Communication Apparatus And Its Method." The '675 Patent was duly and legally issued by the United States Patent and Trademark Office on April 30, 2019. A true and correct copy of the '675 Patent is included as Exhibit A.

7. Data Scape is the owner by assignment of United States Patent No. 10,027,751 ("the '751 Patent"), entitled "Communication System And Its Method and Communication Apparatus And Its Method." The '751 Patent was duly and legally issued by the United States Patent and Trademark Office. A true and correct copy of the '675 Patent is included as Exhibit B.

8. Data Scape is the owner by assignment of United States Patent No. 9,380,112 ("the '112 Patent") entitled "Communication System And Its Method and Communication Apparatus And Its Method." The '112 Patent was duly and legally issued by the United States Patent and Trademark Office on June 28, 2016. A true and correct copy of the '112 Patent is included as Exhibit C.

9. Data Scape is the owner by assignment of United States Patent No. 9,712,614 ("the '614 Patent") entitled "Communication System And Its Method and Communication Apparatus And Its Method." The '614 Patent was duly and legally issued by the United States Patent and Trademark Office on July 18, 2017. A true and correct copy of the '614 Patent is included as Exhibit D.

10. In addition to the factual allegations set forth below for each of the four Counts, the following are non-exhaustive list of fact-based claim constructions that confirm that the claimed solutions do not just cover any sort of selective transfer of digital data, but instead are more focused—and covers a technical species of selective-transfer techniques that enabled devices to automatically detect and transfer only some select data content files and not others. These constructions include the following ones:[1]

a. management information: "digital data stored in a program file and configured to enable a controller to electronically locate, extract and/or transfer only select content data without transferring all content data."

b. content data: "digital data useable to communicate the content or substance of a digital file, as opposed to its metadata"

c. compare/comparing/comparison: "performing an electronic analysis of two sets of digital data stored in different apparatuses to determine the differences between them, if any"

d. controller: "a sub-class of computer microprocessors designed to enable the transfer of digital data"

[1] Data Scape reserves the right to modify these constructions, consistent with the practice of meeting and conferring that are typically in any claim construction proceedings.

e. without regard to the connection: "regardless of whether or not the identified apparatuses are currently connected"

f. connected/connected: "electrically communicating via a wired or wireless connection"

g. editor: "a sub-class of computer interface hardware and/or micro controllers designed to enable editing of digital data"

h. storage medium: "an identifiable non-volatile computer memory for electronically storing data"

i. list: "a digital table, which is stored in a predetermined area in a storage medium and includes an identifier for each stored content data file"

COUNT I

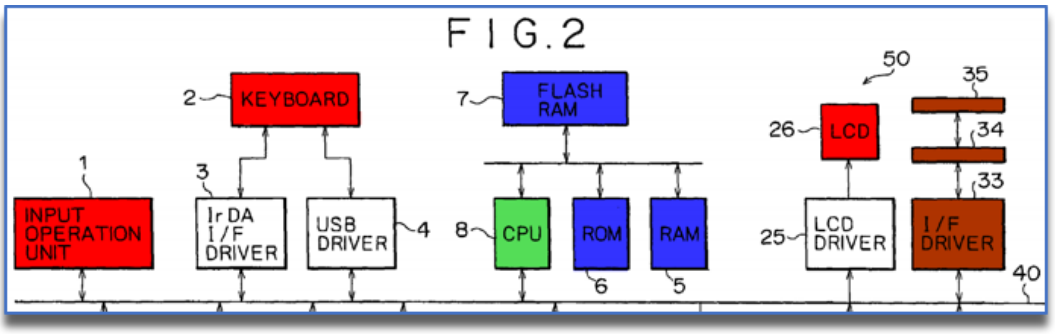
INFRINGEMENT OF U.S. PATENT NO. 10,277,675

11. Data Scape is the owner by assignment of United States Patent No. 10,277,675 ("the '675 Patent"), entitled "Communication System And Its Method and Communication Apparatus And Its Method." The '675 Patent was duly and legally issued by the United States Patent and Trademark Office on April 30, 2019. A true and correct copy of the '675 Patent is included as Exhibit A.

12. Defendant has offered for sale, sold and/or imported into the United States products and services that infringe the '675 patent, and continues to do so. By way of illustrative example, these infringing products and services include, without limitation, Defendant's products and services, *e.g.*, the Pandora System, including Pandora Premium, and all versions and variations thereof since the issuance of the '675 Patent ("Accused Instrumentalities").

13. In their most basic form, and ignoring many claim limitations, the claims of the '675 Patent are directed to a data synchronization system with a processor configured to detect a connection between two storage media and selectively transmit certain digital data between first and second storage media based on a comparison of edited digital data management information stored in the storage medium. The claims are not directed to abstract ideas. The claims provide technical solutions to technical problems, and, thus, are patent-eligible.

14. As the '675 Patent states, the inventor, the inventor, Akihiro Morohashi, working at Sony Corporation, aimed to solve the problems skilled artisans in 1999 faced trying to selectively transfer digital data between two electronic apparatuses. *E.g.*, '675 Patent, Col. 1:64-2:44. For example, many used optical disks to accomplish this process, but that was "cumbersome" and did not enable easy or random selection of files to transfer. *Id.* And when others burned digital files into hard disk drives or semiconductor memory, those systems still required a large amount of time to selectively transfer certain digital data between electronic apparatuses. *Id.* And in any case, there was no reasonable way to selectively synchronize select digital content data between the apparatuses. *Id*. These problems were specific to the technological process of selective digital-data transfer between electronic apparatuses. *Id.* at 1:33-2:31. And with 28 columns of text and 13 figures, including Figure 2 below, the inventors taught various technical solutions involving an unconventional server with a controller configured with circuitry to compare certain digital management information:



15. Enabled by these teachings, the '675 patent recites in its claims various technical solutions to the existing technological problems and shortcomings. For example, various claims require the then-unconventional system of electronic components configured to use certain digital "management information" to compare, edit, delete and selectively transfer separate digital content data between two identified apparatuses. *See, e.g.*, '675 Patent, Claim 1 ("a second hardware storage medium configured to store management information of data to be transferred to said first storage medium; a hardware interface configured to communicate data with said first apparatus; a processor configured to: detect whether said first apparatus and said second apparatus are connected; select certain data to be transferred; edit said management information based on said selection without regard to the connection of said first apparatus and said second apparatus; compare said management information edited by said processor with management information of data stored in said first storage medium; and transmit the selected data stored in said second apparatus to said first apparatus via said hardware interface based on said management information edited by said processor when said processor detects that said first apparatus and said second apparatus are connected based upon a result of the comparison").

16. As such, the claims of the '675 patent generally relate, in their most basic form, and ignoring many claim limitations, to the concept of data synchronization as

understood by a person of ordinary skill in the art. *See, e.g.*, https://www.techopedia.com/definition/1006/data-synchronization ("Data synchronization is the process of maintaining the consistency and uniformity of data instances across all consuming applications and storing devices. It ensures that the same copy or version of data is used in all devices - from source to destination."); https://www.pcmag.com/encyclopedia/term/40854/data-synchronization ("Keeping data in two or more electronic devices up-to-date so that each repository contains the identical information. Data in handheld devices and laptops often require synchronization with the data in a desktop machine or server."); https://en.wikipedia.org/wiki/Data_synchronization ("Data synchronization is the process of establishing consistency among data from a source to a target data storage and vice versa and the continuous harmonization of the data over time.").

17. The '675 patent and its file history make clear that each included independent-claim limitations were not in the prior art, let alone well-understood, routine, and conventional. This includes the claimed [a] storage configured to store management information, [b] hardware interface configured to communicate digital data between two storage media, [c] processor configured to detect a connection, [d] processor configured to select certain data and to edit said management information based on said selection, without regard to the connection, and [e] processor configured to [i] transfer the selected data via said communicator based on said management information, [ii] compare said management information with management information in said first storage medium, and [iii] to transmit data based on the comparison. And the dependent claims also include

limitations that were not in the prior art, let alone well-understood, routine, and conventional. *See, e.g.*, limitations of claims 2-12 of the '675 patent.

18. For instance, claim 1 of the '675 patent recites:

1[pre]. A communication system including a first apparatus having a first hardware storage medium, and a second apparatus, said second apparatus comprising:

[1a] a second hardware storage medium configured to store management information of data to be transferred to said first storage medium;

[1b] a hardware interface configured to communicate data with said first apparatus;

[1c] a processor configured to:

[1d] detect whether said first apparatus and said second apparatus are connected;

[1e] select certain data to be transferred;

[1f] edit said management information based on said selection without regard to the connection of said first apparatus and said second apparatus;

[1g] compare said management information edited by said processor with management information of data stored in said first storage medium; and

[1f] transmit the selected data stored in said second apparatus to said first apparatus via said hardware interface based on said management information edited by said processor when said processor detects that said first apparatus and said second apparatus are connected based upon a result of the comparison.

19. The file history confirms that these limitations (including ones highlighted above) were inventive over prior art and not well-understood, routine, and conventional.

The patent claims were allowed by the Examiner because they were inventive as such. *See* '675 File History, Feb. 14, 2019, Notice of Allowance.

20. Likewise, the specification teaches that editing management information without regard to connection and comparing management information and transmitting selected data from one apparatus to a second apparatus based on the management information were inventive over prior art, and not well-understood, routine, and conventional. *E.g.*, '675 patent at 5:14-6:9, 7:9-8:32, 11:11-12:4, 13:59-15:6, 19:57-22:7, 22:8-67.

21. Claim 1 of the '675 patent does not claim a result, but instead specific technology using specific and unconventional processes and machines, including:

> 1[pre]. A **communication system** including a first apparatus having a first **hardware storage medium**, and a second apparatus, said second apparatus comprising:
>
> [1a] a second **hardware storage medium** configured to store management information of data to be transferred to said first **storage medium**;
>
> [1b] a **hardware interface** configured to communicate data with said first apparatus;
>
> [1c] a **processor** configured to:
>
> [1d] detect whether said first apparatus and said second apparatus are connected;
>
> [1e] select certain data to be transferred;
>
> [1f] edit said management information based on said selection without regard to the connection of said first apparatus and said second apparatus;

[1g] compare said management information edited by said **processor** with management information of data stored in said first **storage medium**; and

[1f] transmit the selected data stored in said second apparatus to said first apparatus via said **hardware interface** based on said management information edited by said **processor** when said **processor** detects that said first apparatus and said second apparatus are connected based upon a result of the comparison.

22. Claim 1 is not representative of all claims of the '675 patent. For example, dependent claims contain limitations not found in independent claims. For example, claim 4 recites "processor is configured to control receiving of identification information of said first apparatus via said hardware interface and to judge whether said identification information of said first apparatus is predetermined identification information and to allow said transfer of data when said identification information of said first apparatus is said predetermined identification information." As another example, claim 5 recites "processor is configured to control a display unit to display a first window in which identification information of data stored in said second apparatus is displayed and a second window in which identification information of said data to be transferred to said first apparatus based on said management data edited by said processor is displayed." As another example, claim 6 recites "processor is configured to edit said management information of data to be transferred to said first apparatus based on an input to said identification information of data displayed in at least one of said first window and said second window."

23. In a patent filed by Western Digital in 2004, it admitted there was still a technical "**need for a system that allows quick and easy communication …**that allows collaborative use of remote devices by multiple users…" U.S. Patent No. 7,546,353

(emphasis added). That was because, even in 2004, it was "not uncommon [] to have separate computing systems [which] requires that the common data all be kept current, i.e., with the latest version of each common file, as it is typical to update and edit files. **This in itself can be an enormously time consuming and tedious**…" *Id*. (emphasis added). And Western Digital even cited Data Scape's patent, which it acknowledged was in the same technical field.

24. Similarly, in a 2005-filed patent application that also cites Data Scape's earlier patents *in the same technical field*, Microsoft made clear that the selective transfer of digital data between two devices was a technical problem one year later. U.S. Patent Application No. 20060288036 (data transfer involved "a number of processes, such as enumeration of content on each device … and efficient metadata retrieval based on user queries. Thus, **user experience could also be enhanced by providing optimization for the transfer enumeration protocol between the two devices**.") (emphasis added) (available at https://patents.google.com/patent/US20060288036?oq=20060288036).

25. And in 2006, this time in a patent application filed by Apple, Steve Jobs and five Apple computer scientists represented to the USPTO that there was still "**a continuing need for improved techniques to transfer** and synchronize media data on host computers and/or media players." U.S. Patent Application 20080086494 (emphasis added). And Apple, too, cited Data Scape's asserted patents, which, again, were acknowledged to be *in the same technical field*. *Id* (available at https://patents.google.com/patent/US20080086494A1/en?oq=20080086494).

26. The statements in these later-filed patent applications confirm that Data Scape's patent at issue here are directed to technical solutions to technical problems, and

improves computer functionalities. The statements in these later-filed patent applications also confirm that the limitations recited in Data Scape's patent at issue here are not well-understood, routine, or conventional, and that the claims are not directed to other ideas "identified by the courts as abstract ideas," that recently have been synthesized into three groups: "(a) mathematical concepts"; "(b) methods of organizing human activity"; or "(c) mental processes." 84 Fed. Reg. 50 (Jan. 7, 2019) (2019 PTO §101 Guidance, citing and surveying post-*Alice* decisions).

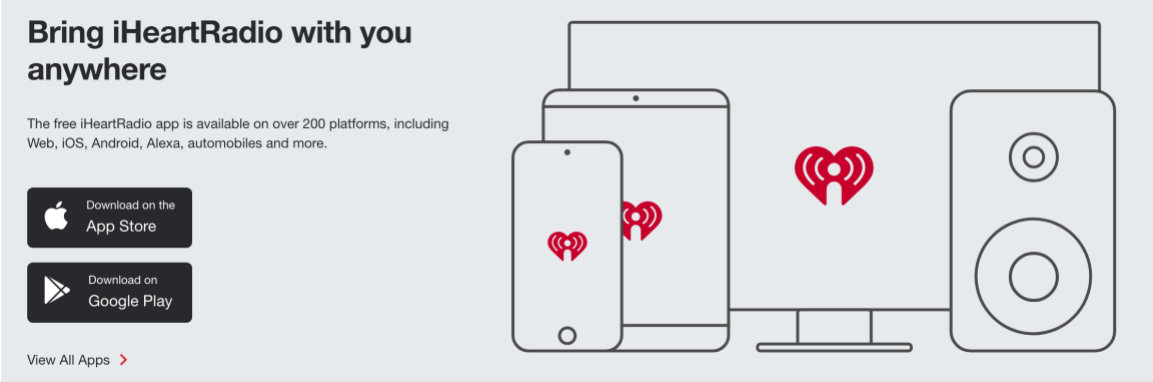
27. Defendant has offered for sale, sold and/or imported into the United States products and services that infringe the '675 patent, and continues to do so. By way of illustrative example, these infringing products and services include, without limitation, Defendant's products and services, *e.g.*, iHeartRadio and all versions and variations thereof since the issuance of the '675 Patent ("Accused Instrumentalities").

28. Defendant has directly infringed and continues to infringe the '675 Patent, for example, by making, selling, offering for sale, and/or importing the Accused Instrumentalities, and through its own use and testing of the Accused Instrumentalities. Defendant uses the Accused Instrumentalities for its own internal non-testing business purposes, while testing the Accused Instrumentalities, and while providing technical support and repair services for the Accused Instrumentalities to its customers.

29. For example, the Accused Instrumentalities infringe Claim 1 (as well as other claims) of the '675 Patent. One non-limiting example of the Accused Instrumentalities' infringement is presented below:

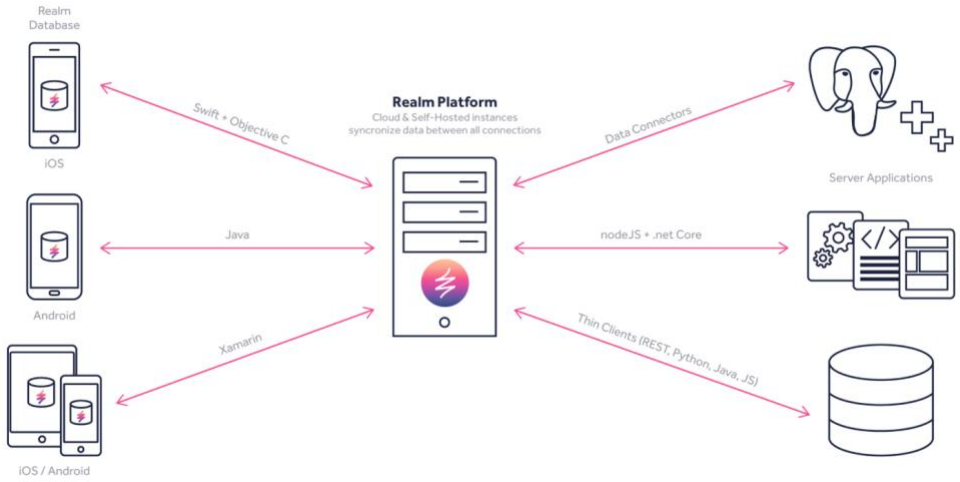
30. The Accused Instrumentalities include "a communication system including a first apparatus having a first hardware storage medium, and a second apparatus." For

example, the Accused Instrumentalities communicate musical content from live radio stations, custom artist stations and podcasts via iHeartRadio application available on mobile phones, tables, and other connected devices. *See*, e.g., https://www.iheartmedia.com/iheartmedia/iheartradio ("iHeartRadio connects fans to their favorite music, radio and personalities through thousands of live radio stations from across the country, millions of custom artist stations and podcasts from radio's biggest talents. Users have access to a catalog of millions of songs to create their custom stations, playing tracks from their favorite artists and similar artists, commercial free. HeartRadio is available online, on mobile phones and tablets, in cars and on connected devices including Xbox, PlayStation and smart TVs."). The Accused Instrumentalities include user devices such as smartphones, tables, or other connected devices.

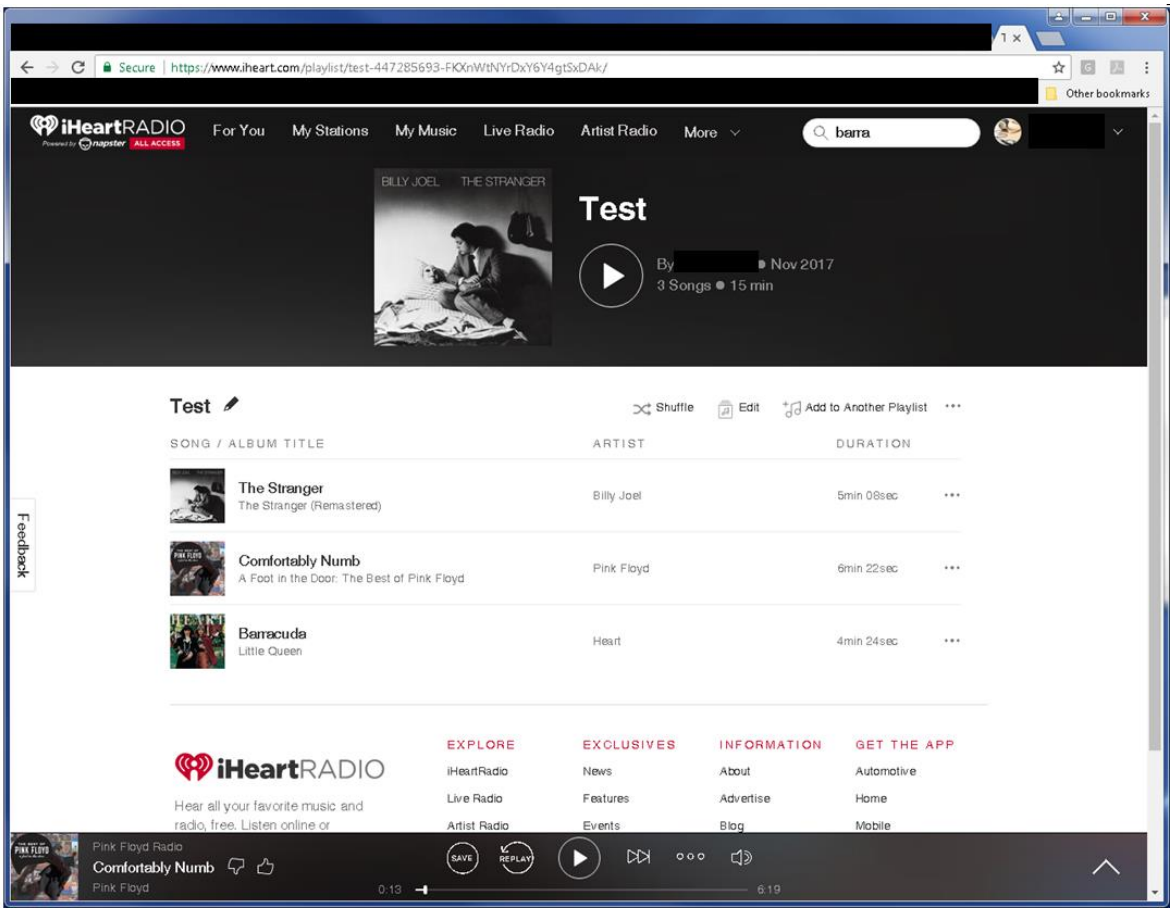


See https://www.iheart.com. The user device, such as a smartphone or a tablet, includes a hardware storage medium. For example, iPhone, iPad, or iPod "comes with a set storage capacity ranging from 16 to 256GB for iPhone, 16 to 512GB for iPad, and 8 to 128GB for iPod touch. The music you buy, the apps you download, the photos you take, and all of the other content that you enjoy on your device uses its storage. And depending on the size of your capacity and how much content you have, your device can fill up and run out of storage." *See* https://support.apple.com/en-us/HT206504. As another example, the Accused

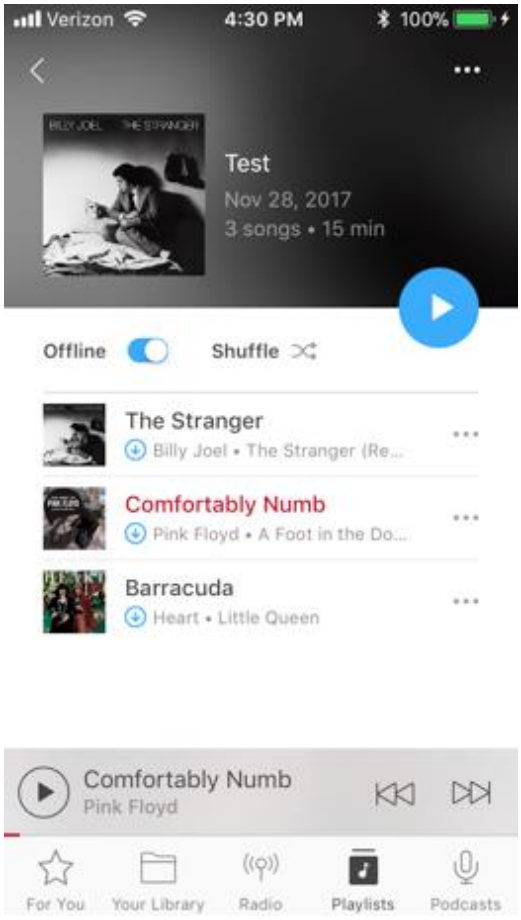
Instrumentalities utilize Realm Mobile Database to "achieve offline mode…." *See* https://tech.iheart.com/performance-comparison-of-realm-and-sqlite-on-ios-6df1d51e6a07 ("We've been using Realm Mobile Database for a while to achieve offline mode, which is a core feature of our brand new All Access subscription."). As such, the Accused Instrumentalities include the Realm Object Server that automatically synchronizes data with Realm Database running on user devices. *See* https://docs.realm.io/server/what-is-realm-platform



31. The Accused Instrumentalities include "a second apparatus comprising a second hardware storage medium configured to store management information of data to be transferred to said first storage medium." For example, the mobile device or tablet with the iHeartRadio App installed contains memory that will store musical files as individual files, station, albums or as playlists:



See iHeartRadio Application.



See iHeartRadio Application.

Tap **Your Library** tab to find playlists you've created or followed.

Tap the **Playlists** tab and scroll through our directory of curated playlists to find something perfect to listen to. Android users will find Playlists within the side navigation.

- Browse by mood or activity in *Mood & Activities*
- Browse by decade in *Decades*
- Browse by genre in *Genres*

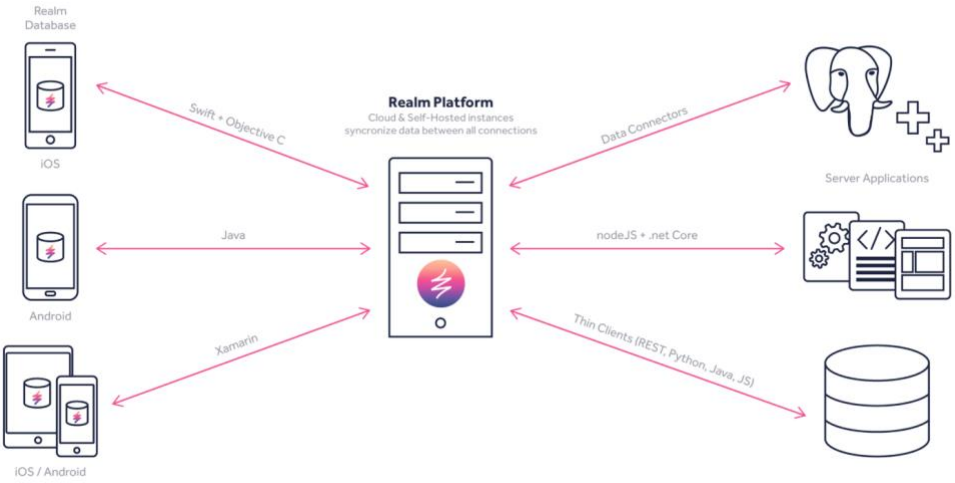
Know exactly what you're looking for? Tap to search for the name of the playlist or by mood/activity.

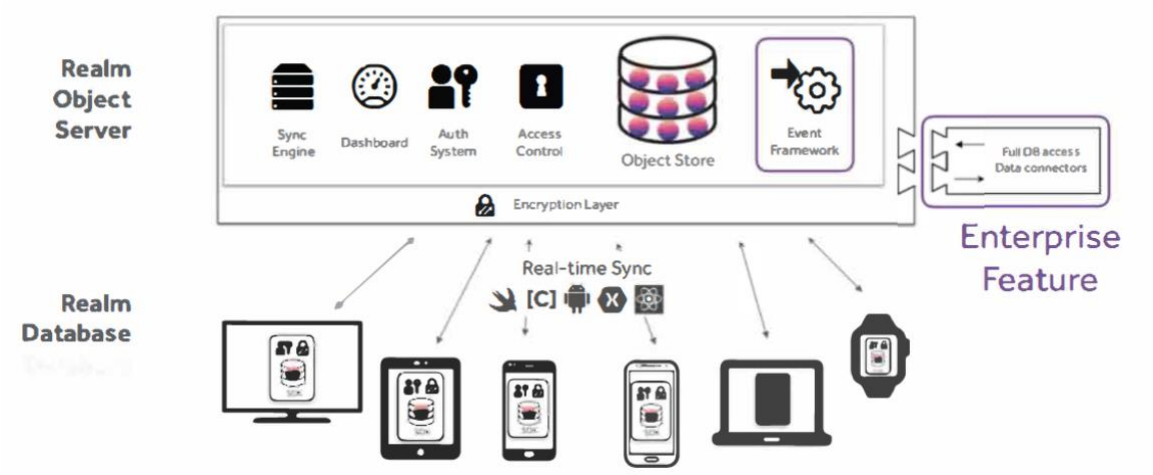
FOLLOW A PLAYLIST

Tap FOLLOW to save a playlist to **Your Library** on iOS or My Music on Android and Web.

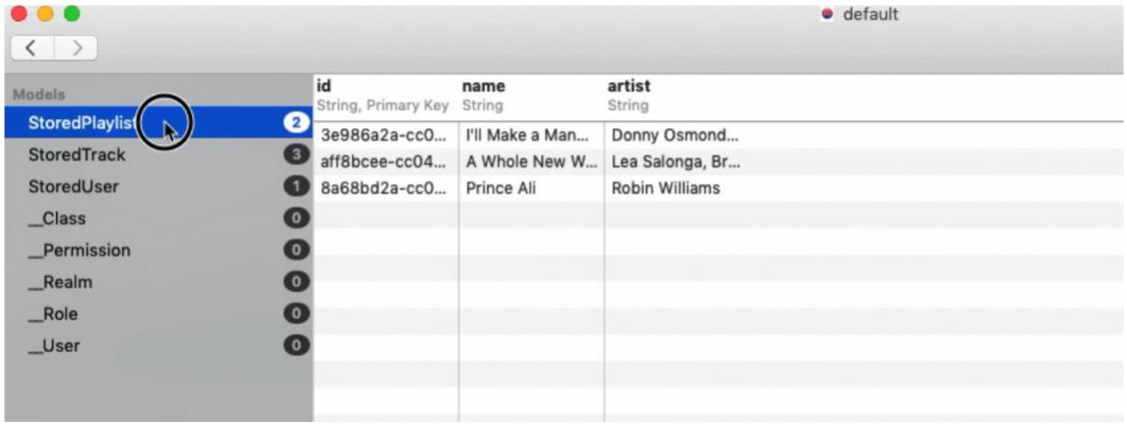
See https://help.iheart.com/hc/en-us/articles/115000243092-Playlists.

As another example, the Accused Instrumentalities include Realm Object Server, which includes an object store. *See* https://tech.iheart.com/performance-comparison-of-realm-and-sqlite-on-ios-6df1d51e6a07 ("We've been using Realm Mobile Database for a while to achieve offline mode, which is a core feature of our brand new All Access subscription."). *See* https://docs.realm.io/server/what-is-realm-platform





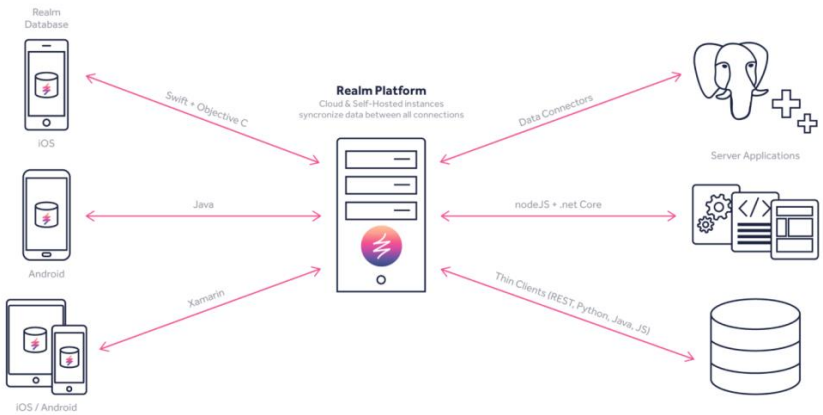
See Build Better Apps, Faster with Real. An Overview of the Real Platform at page 9. The Object Store "is a common set of APIs that enables cross-platform compatible data storage." *See* Build Better Apps, Faster with Real. An Overview of the Real Platform at page 9. More specifically, in Realm Object Server "[A]ll data represented on the client devices is mirrored on the server in the exact same live object format." *See* Build Better Apps, Faster with Real. An Overview of the Real Platform at page 9. As another example, the Accused Instrumentalities store user's playlists and tracks.

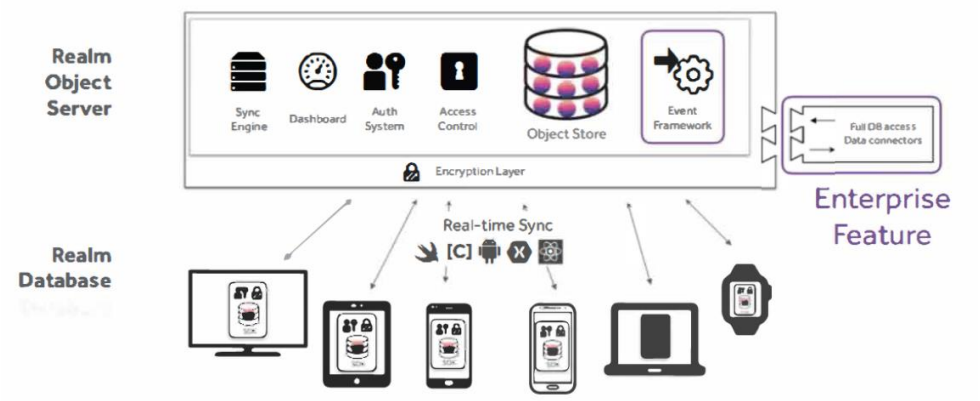


Adding our objects was successful

See https://tech.iheart.com/using-realm-with-swift-and-codable-10a825042e63.

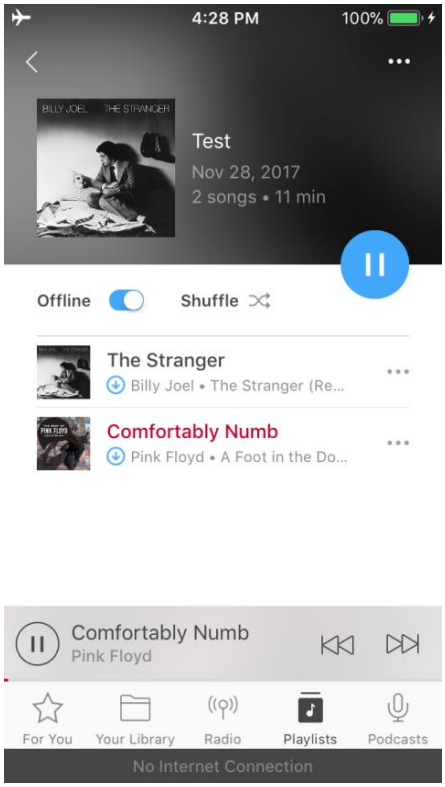
32. The Accused Instrumentalities include "a second apparatus comprising a hardware interface configured to communicate data with said first apparatus." For example, the Accused Instrumentalities includes Realm Object Server, which is configured to communicate with iOS or Android devices. *See* https://tech.iheart.com/performance-comparison-of-realm-and-sqlite-on-ios-6df1d51e6a07 ("We've been using Realm Mobile Database for a while to achieve offline mode, which is a core feature of our brand new All Access subscription."). *See* https://docs.realm.io/server/what-is-realm-platform.

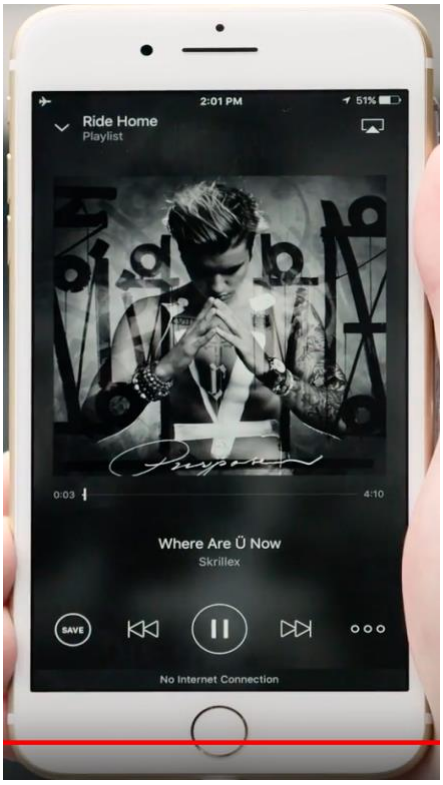




See Build Better Apps, Faster with Real. An Overview of the Real Platform at page 9. In particular, the Accused Instrumentalities include the Realm platform, which "automatically syncs data across devices. *See* Build Better Apps, Faster with Real. An Overview of the Real Platform at page 15. That is "if a user inputs or changes data in an iPhone app, that data is synced in realtime with your entire install base of apps, whether they be iOS or Android. Data is also synced with the Realm Object Server on the back-end, which runs your business logic and processes. *See* Build Better Apps, Faster with Real. An Overview of the Real Platform at page 15. Furthermore, the Realm platform is "designed to serve 10,000 concurrent connections from a single CPU server with 16GBs of RAM." *See* https://docs.realm.io/server/manage/hardware-requirements-and-scaling#dependencies.

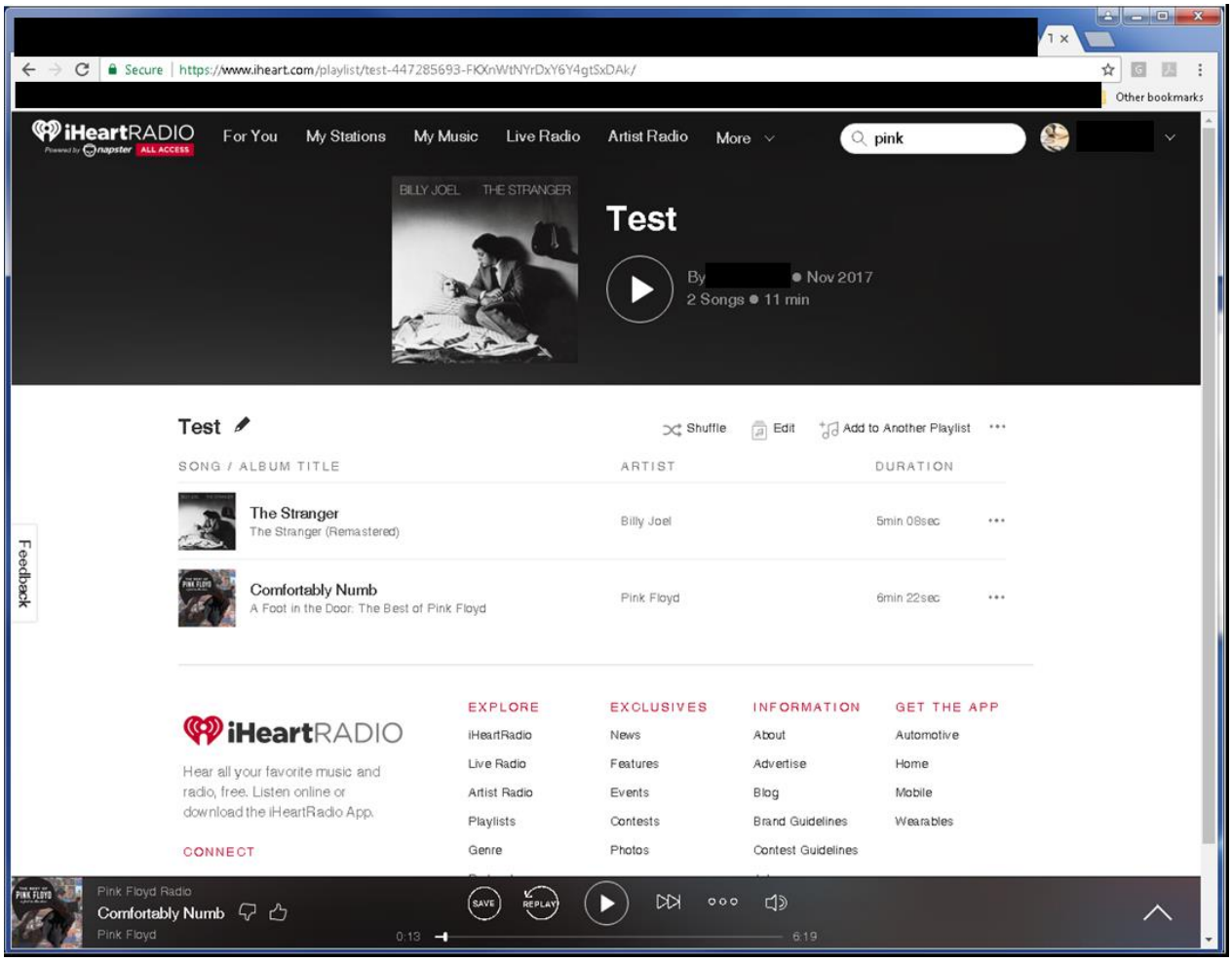
33. The Accused Instrumentalities include "a second apparatus comprising a processor configured to detect whether said first apparatus and said second apparatus are connected." For example, the Accused Instrumentalities uses the Realm platform, which is "designed to serve 10,000 concurrent connections from a single CPU server with 16GBs of RAM." *See* https://docs.realm.io/server/manage/hardware-requirements-and-scaling#dependencies. As another example, the Accused Instrumentalities detect if there is an internet connection.





See iHeartRadio Application and at https://youtu.be/pasrF0b3M-s

34. The Accused Instrumentalities include "a second apparatus comprising a processor configured to select certain data to be transferred." For example, the Accused Instrumentalities are configured to edit or add user playlist which it automatically synced across all devices. *See* Build Better Apps, Faster with Real. An Overview of the Real Platform at page 15. ("Realtime data synchronization is the foundation of the Realm Platform. Realm's "live objects" model automatically syncs data across devices. This means that if a user inputs or changes data in an iPhone app, that data is synced in realtime with your entire install base of apps, whether they be iOS or Android. Data is also synced with the Realm Object Server on the back-end, which runs your business logic and processes."). *See* iHeartRadio Application.



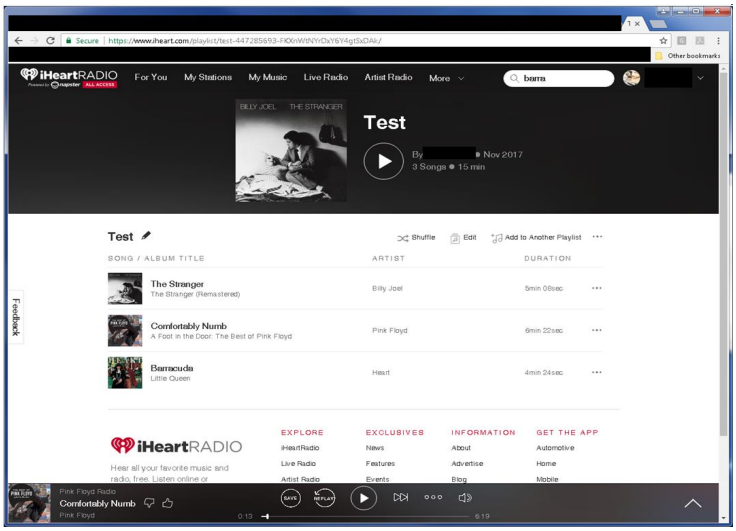
See https://help.iheart.com/hc/en-us/articles/235721047-What-devices-is-iHeartRadio-All-Access-available-on-.

Currently, iHeartRadio All Access is available for the following devices:

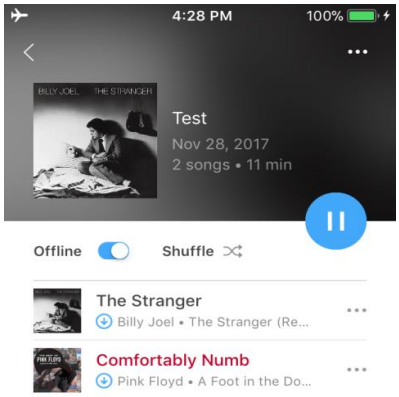
- Web (www.iHeart.com)
- iOS and Android devices
- Apple TV (v1.2.0)*
- Xbox One*
- Android TV*
- Samsung TV*
- Vizio TV*
- LG TV*
- TiVo*

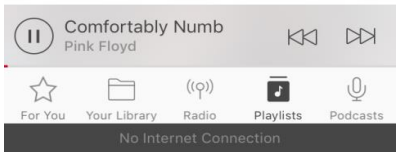
***Note:** When using iHeartRadio All Access on these devices you will have unlimited skips and be able to access the Playlists you created on iHeart.com, or the iOS / Android version of the iHeartRadio app.

35. The Accused Instrumentalities include "a second apparatus comprising a processor configured to edit said management information based on said selection without regard to the connection of said first apparatus and said second apparatus." For example, the Accused Instrumentalities provide a mechanize for editing the user's playlist via the web application without regard to the internet connection of the user's iOS or Android devices.



See iHeartRadio Application.

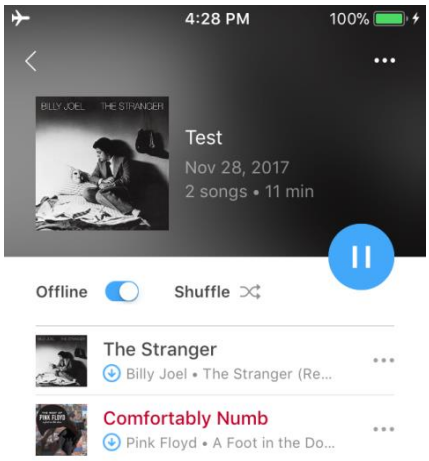


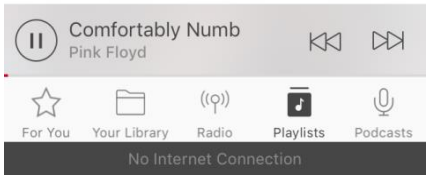


See iHeartRadio Application.

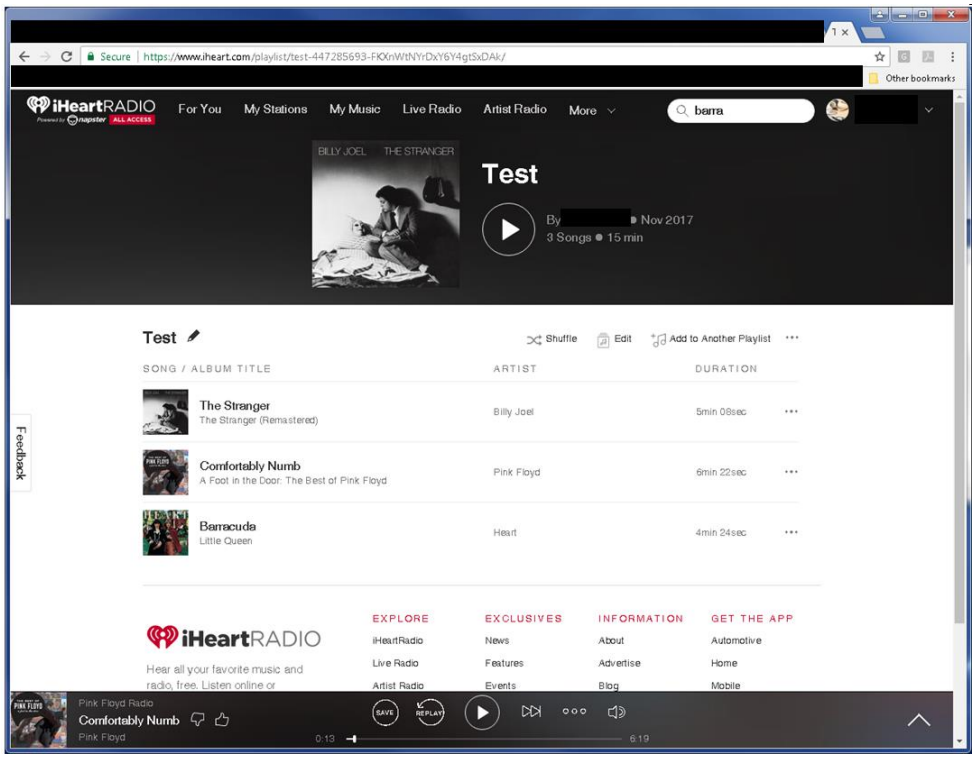
36. The Accused Instrumentalities include "a second apparatus comprising a processor configured to compare said management information edited by said processor with management information of data stored in said first storage medium." For example, the Accused Instrumentalities provide a mechanism to synchronize user playlists across all devices. In particular, the Accused Instrumentalities utilize Realm Platform, which uses subscriptions to compare and synchronize changes to all subscribing clients. *See* https://docs.realm.io/server/what-is-realm-platform. (e.g., "Instead, the client application must choose, or subscribe to, which subset of data in the corresponding Realm on the server it wants to synchronize. Subscribing to data is easy, as it utilizes Realm's query system. Applications can create any number of data queries, which will be transmitted to the server and evaluated. The query results will then be synced to the application. The underlying sync protocol ensures that if an object matches several queries an application has subscribed to, the server will only send that object once. Subscriptions are automatically

persisted and maintained by the server. When data changes occur the server will reevaluate existing subscriptions and push the changes to all subscribing clients."). *See* https://tech.iheart.com/performance-comparison-of-realm-and-sqlite-on-ios-6df1d51e6a07 ("We've been using Realm Mobile Database for a while to achieve offline mode, which is a core feature of our brand new All Access subscription."). As another example, when iHeartRadio's web application makes edits to the user's playlist while the user's iOS or Android device is offline, the playlist edits are compared and synced automatically once the user's iOS or Android device is online.

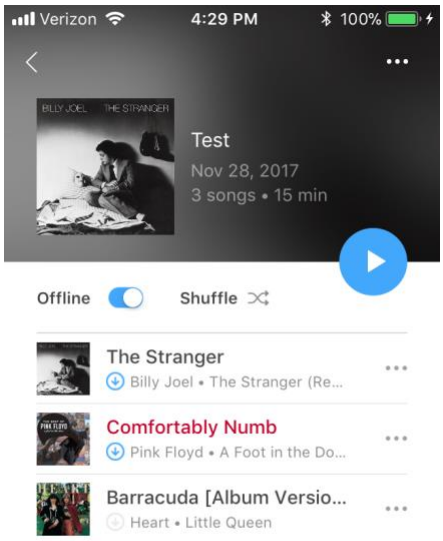




See iHeartRadio Application.

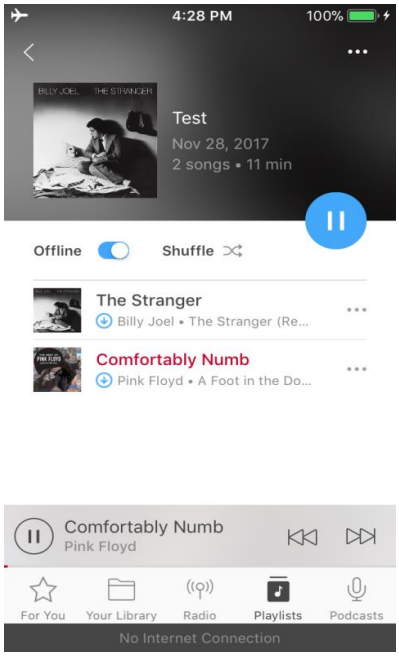


See iHeartRadio Application.

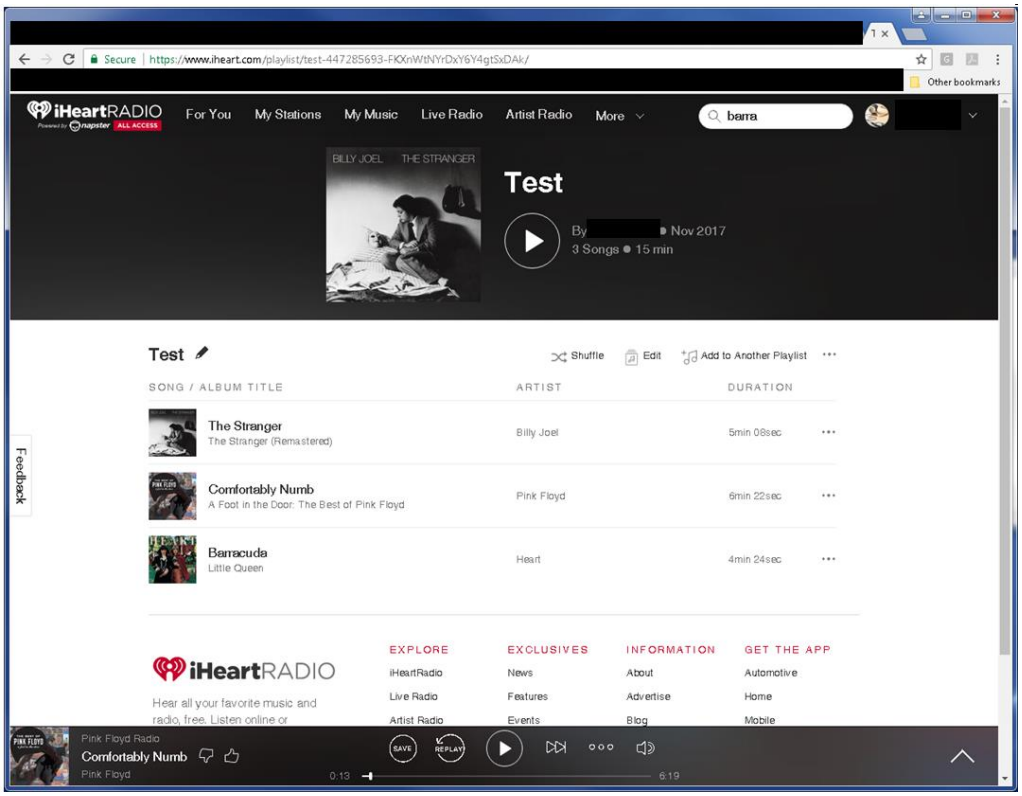


See iHeartRadio Application.

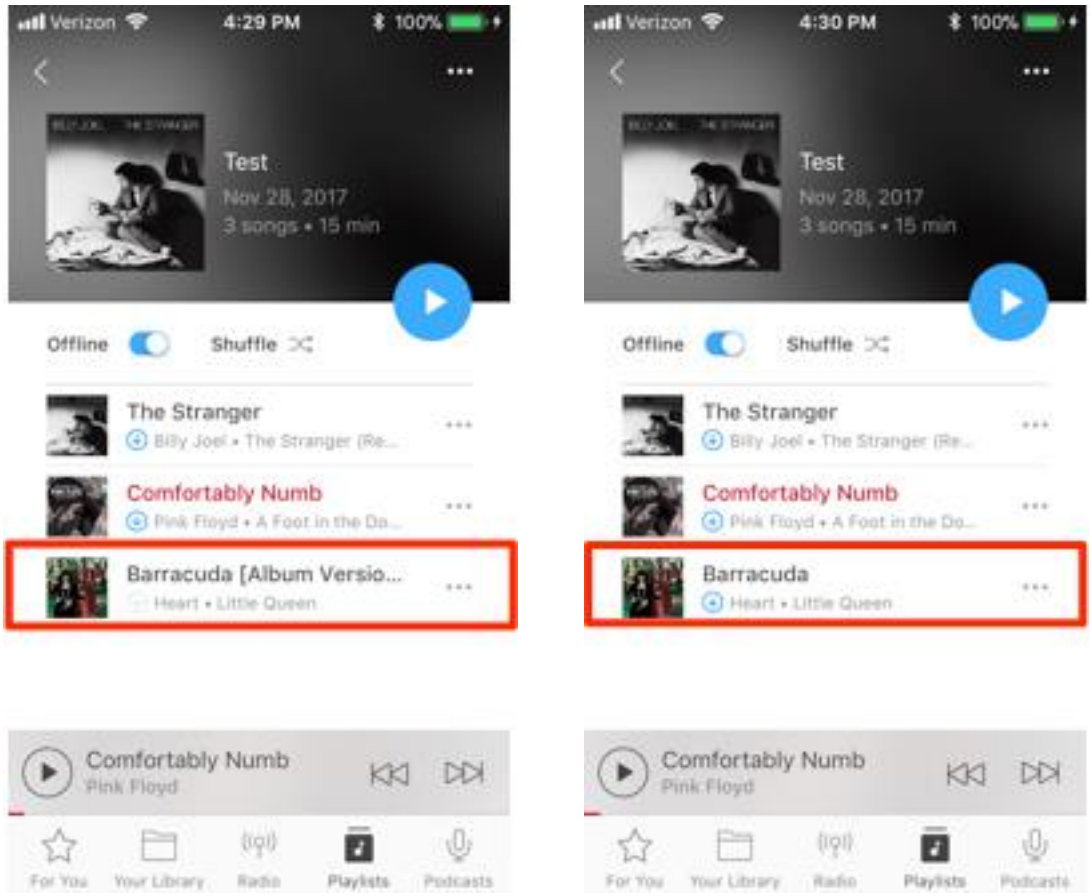
37. The Accused Instrumentalities include "a second apparatus comprising a processor configured to transmit the selected data stored in said second apparatus to said first apparatus via said hardware interface based on said management information edited by said processor when said processor detects that said first apparatus and said second apparatus are connected based upon a result of the comparison." The Accused Instrumentalities include Realm Platform, which uses subscriptions to push changes to all subscribing clients. *See* https://docs.realm.io/server/what-is-realm-platform. (e.g., "When data changes occur the server will reevaluate existing subscriptions and push the changes to all subscribing clients."). *See* https://tech.iheart.com/performance-comparison-of-realm-and-sqlite-on-ios-6df1d51e6a07 ("We've been using Realm Mobile Database for a while to achieve offline mode, which is a core feature of our brand new All Access subscription."). As another example, when iHeartRadio's web application makes edits to the user's playlist while the user's iOS or Android device is offline, the playlist edits are automatically transmitted once the user's iOS or Android device is online.



See iHeartRadio Application.



See iHeartRadio Application.



See iHeartRadio Application. (emphasis added).

38. Defendant has had knowledge of the ’675 Patent and its infringement since at least the filing of this Complaint, or shortly thereafter, including by way of this lawsuit. By the time of trial, Defendant will have known and intended (since receiving such notice) that its continued actions would actively induce and contribute to the infringement of the claims of the ’675 Patent.

39. Defendant’s affirmative acts of making, using, selling, offering for sale, and/or importing the Accused Instrumentalities have induced and continue to induce users of the Accused Instrumentalities to use the Accused Instrumentalities in their normal and customary way to infringe the claims of the ’675 Patent. Use of the Accused

Instrumentalities in their ordinary and customary fashion results in infringement of the claims of the ’675 Patent.

40. For example, Defendant explains to customers the benefits of using the Accused Instrumentalities, such as by touting their advantages of synchronizing settings among multiple devices. Defendant also induces its customers to use the Accused Instrumentalities to infringe other claims of the ’675 Patent. Defendant specifically intended and was aware that the normal and customary use of the Accused Instrumentalities on compatible systems would infringe the ’675 Patent. Defendant performed the acts that constitute induced infringement, and would induce actual infringement, with the knowledge of the ’675 Patent and with the knowledge, or willful blindness to the probability, that the induced acts would constitute infringement. On information and belief, Defendant engaged in such inducement to promote the sales of the Accused Instrumentalities, e.g., through its user manuals, product support, marketing materials, demonstrations, installation support, and training materials to actively induce the users of the accused products to infringe the ’675 Patent. Accordingly, Defendant has induced and continues to induce end users of the accused products to use the accused products in their ordinary and customary way with compatible systems to make and/or use systems infringing the ’675 Patent, knowing that such use of the Accused Instrumentalities with compatible systems will result in infringement of the ’675 Patent. Accordingly, Defendant has been (since at least as of filing of the original complaint), and currently is, inducing infringement of the ’675 Patent, in violation of 35 U.S.C. § 271(b).

41. For similar reasons, Defendant also infringes the ’675 Patent by supplying or causing to be supplied in or from the United States all or a substantial portion of the

components of the Accused Instrumentalities, where such components are uncombined in whole or in part, in such manner as to actively induce the combination of such components outside of the United States in a manner that would infringe the ’675 Patent if such combination occurred within the United States. For example, Defendant supplies or causes to be supplied in or from the United States all or a substantial portion of the hardware (e.g., separate iHeartRadio backend servers) and software (e.g., iHeartRadio Application) components of the Accused Instrumentalities in such a manner as to actively induce the combination of such components (e.g., by instructing users to combine iHeartRadio servers and into an infringing system) outside of the United States

42. Defendant has also infringed, and continues to infringe, claims of the ’675 Patent by offering to commercially distribute, commercially distributing, making, and/or importing the Accused Instrumentalities, which are used in practicing the process, or using the systems, of the ’675 Patent, and constitute a material part of the invention. Defendant knows the components in the Accused Instrumentalities to be especially made or especially adapted for use in infringement of the ’675 Patent, not a staple article, and not a commodity of commerce suitable for substantial noninfringing use. For example, the ordinary way of using the Accused Instrumentalities infringes the patent claims, and as such, is especially adapted for use in infringement. Accordingly, Defendant has been, and currently is, contributorily infringing the ’675 Patent, in violation of 35 U.S.C. § 271(c).

43. Defendant also indirectly infringes the ’675 Patent by supplying or causing to be supplied in or from the United States components of the Accused Instrumentalities that are especially made or especially adapted for use in infringing the ’675 Patent and are not a staple article or commodity of commerce suitable for substantial non-infringing use,

and where such components are uncombined in whole or in part, knowing that such components are so made or adapted and intending that such components are combined outside of the United States in a manner that would infringe the '675 Patent if such combination occurred within the United States. Because the Accused Instrumentalities are designed to operate as the claimed system and apparatus, the Accused Instrumentalities have no substantial non-infringing uses, and any other uses would be unusual, far-fetched, illusory, impractical, occasional, aberrant, or experimental. For example, Defendant supplies or causes to be supplied in or from the United States all or a substantial portion of the hardware (e.g., separate iHeartRadio servers) and software (e.g., iHeartRadio Application) components that are especially made or especially adapted for use in the Accused Instrumentalities, where such hardware and software components are not staple articles or commodities of commerce suitable for substantial noninfringing use, knowing that such components are so made or adapted and intending that such components are combined outside of the United States, as evidenced by Defendant's own actions or instructions to users in, e.g., combining multiple iHeartMedia servers into infringing systems, and enabling and configuring the infringing functionalities of the Accused Instrumentalities.

44. As a result of Defendant's infringement of the '675 Patent, Plaintiff Data Scape is entitled to monetary damages in an amount adequate to compensate for Defendant's infringement, but in no event less than a reasonable royalty for the use made of the invention by Defendant, together with interest and costs as fixed by the Court.

COUNT II

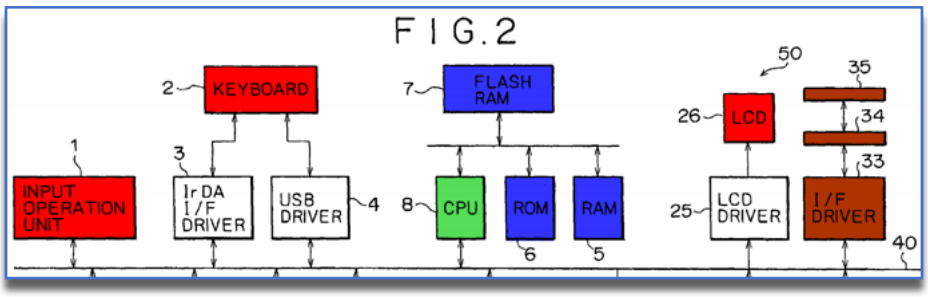
INFRINGEMENT OF U.S. PATENT NO. 10,027,751

45. Data Scape is the owner by assignment of United States Patent No. 10,027,751 ("the '751 Patent"), entitled "Communication System And Its Method and Communication Apparatus And Its Method." The '751 Patent was duly and legally issued by the United States Patent and Trademark Office on July 17, 2018. A true and correct copy of the '751 Patent is included as Exhibit B.

46. In their most basic form, and ignoring many claim limitations, the claims of the '751 Patent are directed to a data synchronization system with a processor configured to detect a connection between two storage media and selectively transmit certain digital data between first and second storage media based on a comparison of edited digital data management information stored in the storage medium as well as the size of the data to be transferred and the remaining space available in the second storage medium. The claims are not directed to abstract ideas. The claims provide technical solutions to technical problems, and, thus, are patent-eligible.

47. As the '751 Patent states, the inventor, Akihiro Morohashi, working at Sony Corporation, aimed to solve the problems skilled artisans in 1999 faced trying to selectively transfer data between two electronic apparatuses. *E.g.*, '752 Patent, Col 2:1-69. For example, many used optical disks to accomplish this process, but that was "cumbersome" and did not enable easy or random selection of files to transfer. *Id.* at 2:43-48. And when others burned digital files into hard disk drives or semiconductor memory, those systems still required a large amount of time to selectively transfer certain digital data between electronic apparatuses. *Id.* at 2:29-28. And in any case, there was no reasonable way to

selectively synchronize select digital content data between the apparatuses. *Id.* These problems were specific to the technological process of selective digital-data transfer between electronic apparatuses. *Id.* at 1:29-2:59. And with over 28 columns of text and 13 figures, including Figure 2 below, the inventor taught various technical solutions involving an unconventional server with a controller configured with circuitry to compare certain digital management information:



48. Enabled by these teachings, the patents recite in their claims various technical solutions to the existing technological problems and shortcomings. For example, various claims require the then-unconventional system of electronic components configured to use certain digital "management information" to compare, edit, delete and selectively transfer separate digital content data between two identified apparatuses. See, e.g., '751 Patent, Claim 1 ("A communication apparatus configured to transmit data to an apparatus, the communication apparatus comprising: a hardware storage medium configured to store management information of data to be transferred to the apparatus; a communicator configured to communicate data with the apparatus; a detector configured to detect whether the communication apparatus and the apparatus are connected; an editor configured to select certain data to be transferred and to edit the management information based on the selection without regard to the connection of the communication apparatus and the apparatus; and a controller configured to control transfer of the selected data stored in the communication apparatus to the apparatus via the communicator based on the

management information edited by the editor when the detector detects that the communication apparatus and the apparatus are connected, wherein the controller is configured to compare the management information edited by the editor with management information of data stored in the apparatus, determine a size of the selected data in the communication apparatus, and transmit data in the communication apparatus based on result of the comparison and the determination.").

49. As such, the claims of the '751 patent generally relate, in their most basic form, and ignoring many claim limitations, to the concept of data synchronization as understood by a person of ordinary skill in the art. *See, e.g.*, https://www.techopedia.com/definition/1006/data-synchronization ("Data synchronization is the process of maintaining the consistency and uniformity of data instances across all consuming applications and storing devices. It ensures that the same copy or version of data is used in all devices - from source to destination."); https://www.pcmag.com/encyclopedia/term/40854/data-synchronization ("Keeping data in two or more electronic devices up-to-date so that each repository contains the identical information. Data in handheld devices and laptops often require synchronization with the data in a desktop machine or server."); https://en.wikipedia.org/wiki/Data_synchronization ("Data synchronization is the process of establishing consistency among data from a source to a target data storage and vice versa and the continuous harmonization of the data over time.").

50. The '751 patent and its file history make clear that each included independent-claim limitations were not in the prior art, let alone well-understood, routine, and conventional. This includes the claimed communication apparatus configured to

transmit data to an apparatus, the communication apparatus comprising: a hardware storage medium configured to store management information of data to be transferred to the apparatus; a communicator configured to communicate data with the apparatus; a detector configured to detect whether the communication apparatus and the apparatus are connected; an editor configured to select certain data to be transferred and to edit the management information based on the selection without regard to the connection of the communication apparatus and the apparatus; and a controller configured to control transfer of the selected data stored in the communication apparatus to the apparatus via the communicator based on the management information edited by the editor when the detector detects that the communication apparatus and the apparatus are connected, wherein the controller is configured to compare the management information edited by the editor with management information of data stored in the apparatus, determine a size of the selected data in the communication apparatus, and transmit data in the communication apparatus based on result of the comparison and the determination.. And the dependent claims also include limitations that were not in the prior art, let alone well-understood, routine, and conventional. *See, e.g.*, limitations of claims 2, 3, 4, 5, 6, 7, and 8 of the ’751 patent.

51. For instance, claim 1 of the ‘751 patent recites:

1. A communication apparatus configured to transmit data to an apparatus, the communication apparatus comprising:

[1a] a hardware storage medium configured to store management information of data to be transferred to the apparatus;

[1b] a communicator configured to communicate data with the apparatus; a detector configured to detect whether the communication apparatus and the apparatus are connected;

[1b] an editor configured to select certain data to be transferred and to edit the management information based on the selection without regard to the connection of the communication apparatus and the apparatus;

[1c] and a controller configured to control transfer of the selected data stored in the communication apparatus to the apparatus via the communicator based on the management information edited by the editor when the detector detects that the communication apparatus and the apparatus are connected,

[1d] wherein the controller is configured to

[1e] compare the management information edited by the editor with management information of data stored in the apparatus,

[1f] **determine a size of the selected data in the communication apparatus**, and

[1g] transmit data in the communication apparatus based on result of the comparison and the determination.

52. The limitations highlighted above in combination are not found in the claims of the ‘675 patent or the other asserted patents.

53. Further, the file history confirms that these limitations were inventive over prior art and not well-understood, routine, and conventional. Specifically, after these limitations were added to the claims of the ‘581 Patent, the patent claims were allowed by the Examiner.

54. Likewise, the specification teaches that controlling transfer and playback of musical content data based on comparison of edited list was inventive over the prior art, and not well-understood, routine, and conventional. *E.g.*, '675 patent at 5:14-6:9, 7:9-8:32, 11:11-12:4, 13:59-15:6, 19:57-22:7, 22:8-67.[2]

55. Claim 1 of the '751 patent does not claim a result, but instead specific technology using specific and non-conventional processes and machines, including:

> 1. A **communication apparatus** configured to transmit data to an **apparatus**, the communication apparatus comprising:
>
> [1a] **a hardware storage medium** configured to store management information of data to be transferred to the apparatus;
>
> [1b] **a communicator** configured to communicate data with the apparatus; a detector configured to detect whether the **communication apparatus** and the apparatus are connected;
>
> [1b] **an editor** configured to select certain data to be transferred and to edit the management information based on the selection without regard to the connection of the communication apparatus and the apparatus;
>
> [1c] and **a controller** configured to control transfer of the selected data stored in the communication apparatus to the apparatus via the communicator based on the management information edited by the editor when the detector detects that the communication apparatus and the apparatus are connected,
>
> [1d] wherein the **controller** is configured to

[2] The '675 patent is related to (and share substantially the same specification as) the '112, '614, and '238 patents. Accordingly, citations to the '675 patent is applicable to the '112, '614, and '238 patents, and vice versa.

[1e] compare the management information edited by the **editor** with management information of data stored in the **apparatus**,

[1f] determine a size of the selected data in the communication apparatus, and

[1g] transmit data in the **communication apparatus** based on result of the comparison and the determination.

56. Claim 1 is not representative of all claims of the '751 patent. For example, dependent claims contain limitations not found in independent claims. For example, claim 3 recites "the controller is configured to control receiving of identification information of the apparatus via the communicator and to judge whether the identification information of the apparatus is predetermined identification information and to allow the transfer of data when the identification information of the apparatus is the predetermined identification information." As another example, claim 4 recites "herein the editor is configured to edit the management information of data to be transferred to the apparatus based on an input to the identification information of data displayed in at least one of the first window and the second window." As another example, claim 6 recites "wherein the apparatus is portable and the apparatus having a flash memory which stores the transferred data." As another example, claim 8 recites "wherein the controller is further configured to: determine that the determined size of the selected data is greater than an available storage space on the apparatus; and request the apparatus to delete data stored on the apparatus based upon the determined size of the selected data and the available storage space on the apparatus." These and other limitations are inventive over the prior art and not well-understood, routine, and conventional.

57. In a patent filed by Western Digital in 2004, it admitted there was still a technical "**need for a system that allows quick and easy communication …**that allows collaborative use of remote devices by multiple users…" U.S. Patent No. 7,546,353 (emphasis added). That was because, even in 2004, it was "not uncommon [] to have separate computing systems [which] requires that the common data all be kept current, i.e., with the latest version of each common file, as it is typical to update and edit files. **This in itself can be an enormously time consuming and tedious**…" *Id*. (emphasis added). And Western Digital even cited Data Scape's patent, which it acknowledged was in the same technical field.

58. Similarly, in a 2005-filed patent application that also cites Data Scape's earlier patents *in the same technical field*, Microsoft made clear that the selective transfer of digital data between two devices was a technical problem one year later. U.S. Patent Application No. 20060288036 (data transfer involved "a number of processes, such as enumeration of content on each device … and efficient metadata retrieval based on user queries. Thus, **user experience could also be enhanced by providing optimization for the transfer enumeration protocol between the two devices**.") (emphasis added) (available at https://patents.google.com/patent/US20060288036?oq=20060288036).

59. And in 2006, this time in a patent application filed by Apple, Steve Jobs and five Apple computer scientists represented to the USPTO that there was still "**a continuing need for improved techniques to transfer** and synchronize media data on host computers and/or media players." U.S. Patent Application 20080086494 (emphasis added). And Apple, too, cited Data Scape's asserted patents, which, again, were acknowledged to be *in*

the same technical field. *Id* (available at https://patents.google.com/patent/US20080086494A1/en?oq=20080086494).

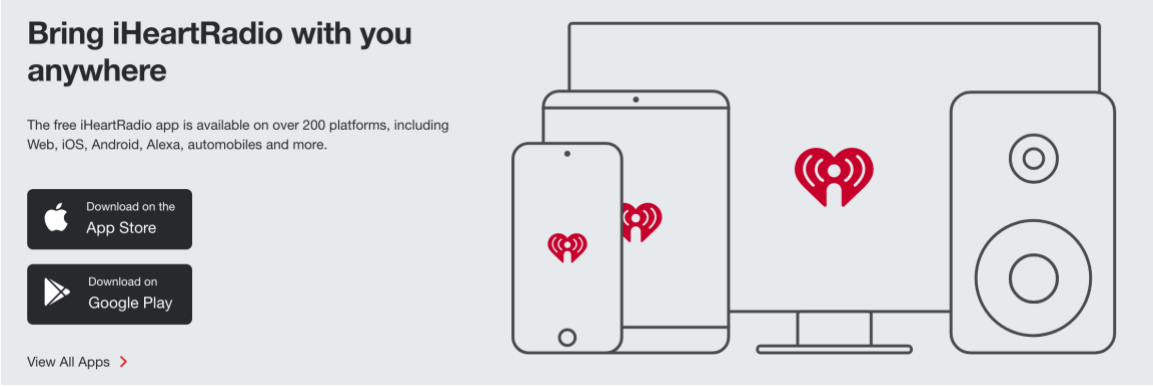
60. The statements in these later-filed patent applications confirm that Data Scape's patent at issue here are directed to technical solutions to technical problems, and improves computer functionalities. The statements in these later-filed patent applications also confirm that the limitations recited in Data Scape's patent at issue here are not well-understood, routine, or conventional, and that the claims are not directed to other ideas "identified by the courts as abstract ideas," that recently have been synthesized into three groups: "(a) mathematical concepts"; "(b) methods of organizing human activity"; or "(c) mental processes." 84 Fed. Reg. 50 (Jan. 7, 2019) (2019 PTO §101 Guidance, citing and surveying post-*Alice* decisions).

61. Defendant has offered for sale, sold and/or imported into the United States products and services that infringe the '751 patent, and continues to do so. By way of illustrative example, these infringing products and services include, without limitation, Defendant's products and services, *e.g.*, iHeartRadio and all versions and variations thereof since the issuance of the '751 Patent ("Accused Instrumentalities").

62. Defendant has directly infringed and continues to infringe the '751 Patent, for example, by making, selling, offering for sale, and/or importing the Accused Instrumentalities, and through its own use and testing of the Accused Instrumentalities. Defendant uses the Accused Instrumentalities for its own internal non-testing business purposes, while testing the Accused Instrumentalities, and while providing technical support and repair services for the Accused Instrumentalities to its customers.

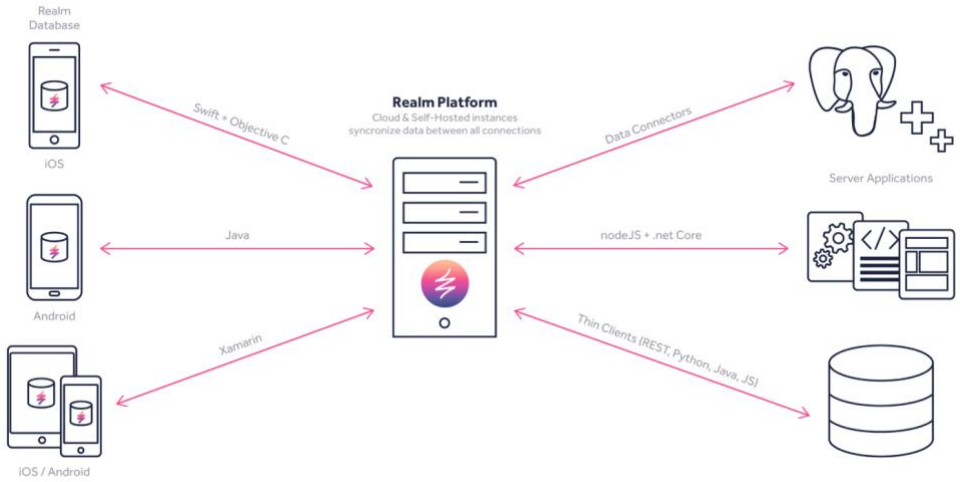
63. For example, the Accused Instrumentalities infringe Claim 1 (as well as other claims) of the '751 Patent. One non-limiting example of the Accused Instrumentalities' infringement is presented below:

64. The Accused instrumentalities include "[a] communication apparatus configured to transmit data to an apparatus." For example, the Accused Instrumentalities communicate musical content from live radio stations, custom artist stations and podcasts via iHeartRadio application available on mobile phones, tables, and other connected devices. *See*, e.g., https://www.iheartmedia.com/iheartmedia/iheartradio ("iHeartRadio connects fans to their favorite music, radio and personalities through thousands of live radio stations from across the country, millions of custom artist stations and podcasts from radio's biggest talents. Users have access to a catalog of millions of songs to create their custom stations, playing tracks from their favorite artists and similar artists, commercial free. HeartRadio is available online, on mobile phones and tablets, in cars and on connected devices including Xbox, PlayStation and smart TVs."). The Accused Instrumentalities include user devices such as smartphones, tables, or other connected devices.

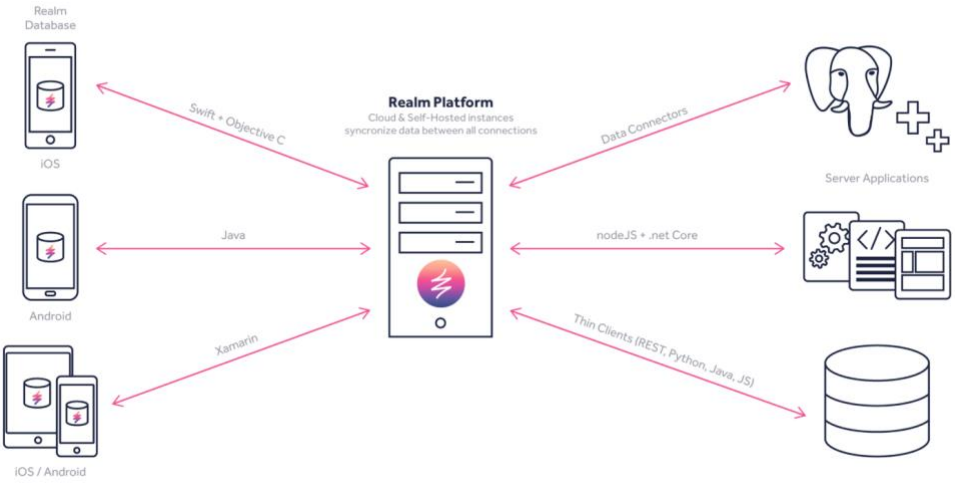


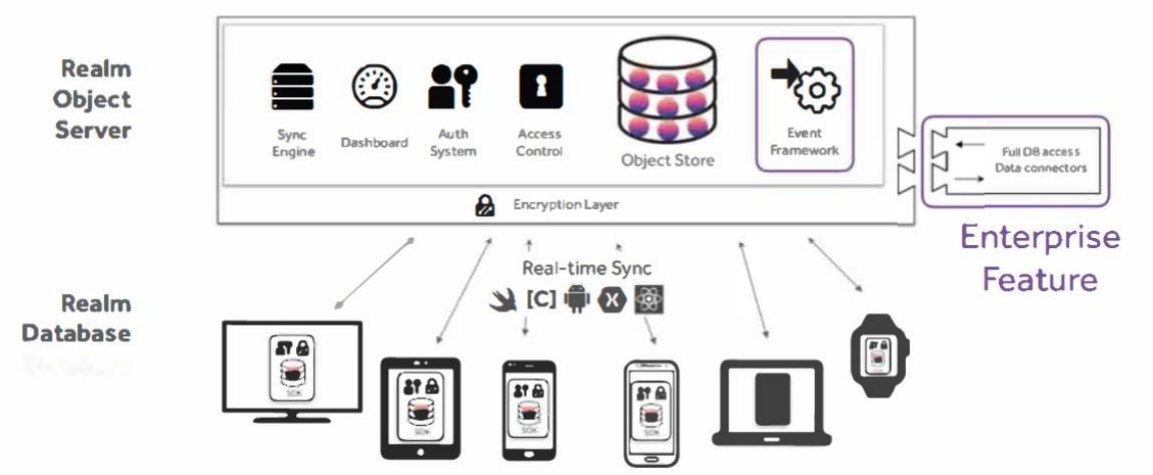
See https://www.iheart.com. As another example, the Accused Instrumentalities utilize Realm Mobile Database to "achieve offline mode…." *See* https://tech.iheart.com/performance-comparison-of-realm-and-sqlite-on-ios-

6df1d51e6a07 ("We've been using Realm Mobile Database for a while to achieve offline mode, which is a core feature of our brand new All Access subscription."). As such, the Accused Instrumentalities include the Realm Object Server that automatically transmits data to Realm Database running on user devices. *See* https://docs.realm.io/server/what-is-realm-platform

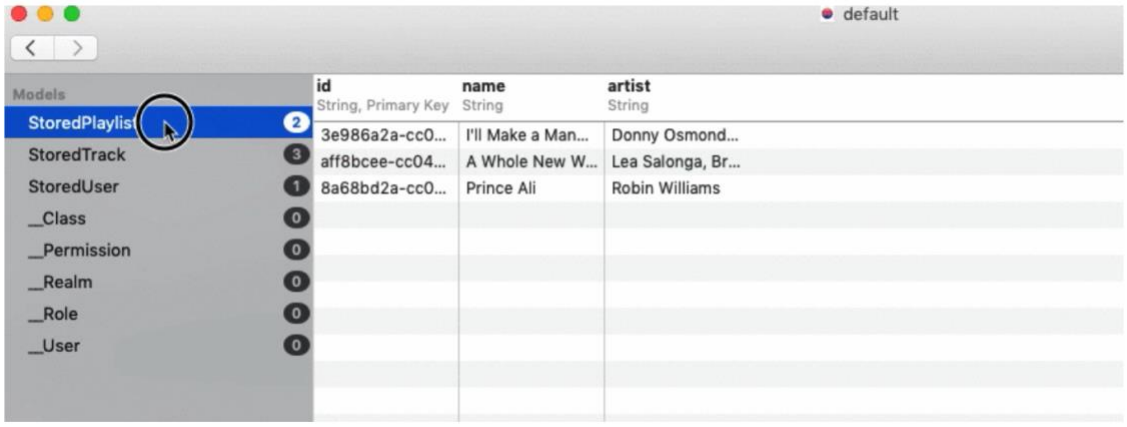


65. The Accused instrumentalities include a communication apparatus comprising "a hardware storage medium configured to store management information of data to be transferred to the apparatus." For example, the Accused Instrumentalities include Realm Object Server, which includes an object store. *See* https://tech.iheart.com/performance-comparison-of-realm-and-sqlite-on-ios-6df1d51e6a07 ("We've been using Realm Mobile Database for a while to achieve offline mode, which is a core feature of our brand new All Access subscription."). *See* https://docs.realm.io/server/what-is-realm-platform





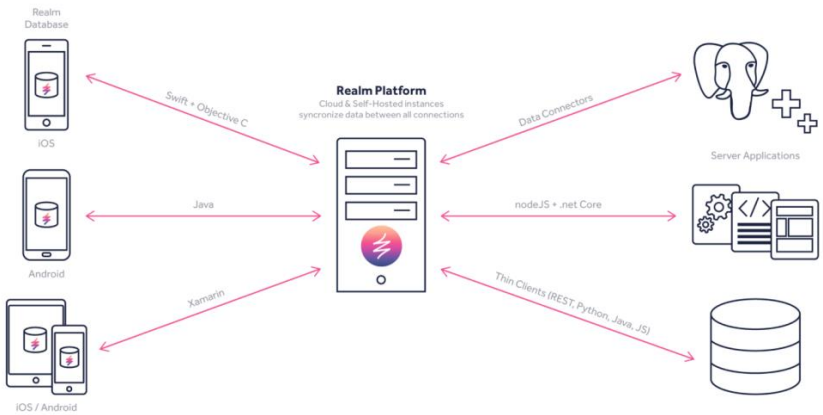
See Build Better Apps, Faster with Real. An Overview of the Real Platform at page 9. The Object Store "is a common set of APIs that enables cross-platform compatible data storage." *See* Build Better Apps, Faster with Real. An Overview of the Real Platform at page 9. More specifically, in Realm Object Server "[A]ll data represented on the client devices is mirrored on the server in the exact same live object format." *See* Build Better Apps, Faster with Real. An Overview of the Real Platform at page 9. As another example, the Accused Instrumentalities store user's playlists and tracks.

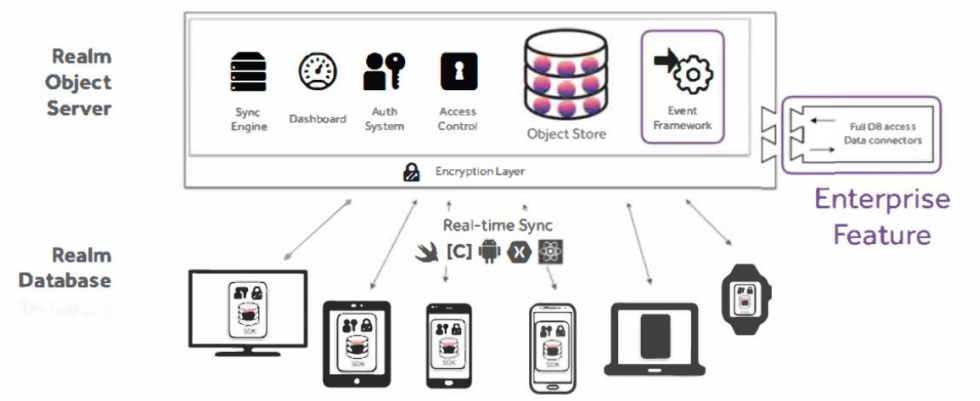


Adding our objects was successful

See https://tech.iheart.com/using-realm-with-swift-and-codable-10a825042e63.

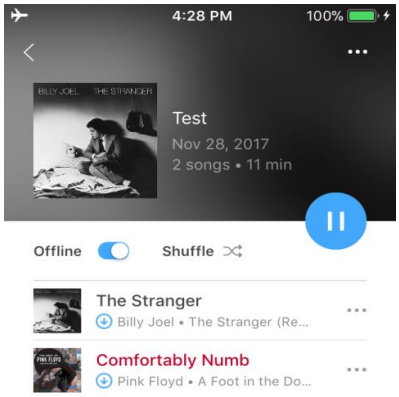
66. The Accused instrumentalities include a communication apparatus comprising "a communicator configured to communicate data with the apparatus." For example, the Accused Instrumentalities includes Realm Object Server, which is configured to communicate with iOS or Android devices. *See* https://tech.iheart.com/performance-comparison-of-realm-and-sqlite-on-ios-6df1d51e6a07 ("We've been using Realm Mobile Database for a while to achieve offline mode, which is a core feature of our brand new All Access subscription."). *See* https://docs.realm.io/server/what-is-realm-platform.

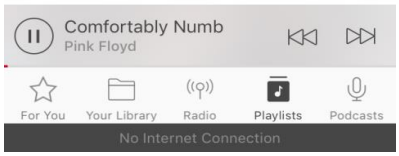




See Build Better Apps, Faster with Real. An Overview of the Real Platform at page 9. In particular, the Accused Instrumentalities include the Realm platform, which "automatically syncs data across devices. *See* Build Better Apps, Faster with Real. An Overview of the Real Platform at page 15. That is "if a user inputs or changes data in an iPhone app, that data is synced in realtime with your entire install base of apps, whether they be iOS or Android. Data is also synced with the Realm Object Server on the back-end, which runs your business logic and processes. *See* Build Better Apps, Faster with Real. An Overview of the Real Platform at page 15. Furthermore, the Realm platform is "designed to serve 10,000 concurrent connections from a single CPU server with 16GBs of RAM." *See* https://docs.realm.io/server/manage/hardware-requirements-and-scaling#dependencies.

67. The Accused instrumentalities include a communication apparatus comprising "a detector configured to detect whether the communication apparatus and the apparatus are connected." For example, the Accused instrumentalities include a network interface configured to detect whether Internet connection is unavailable.

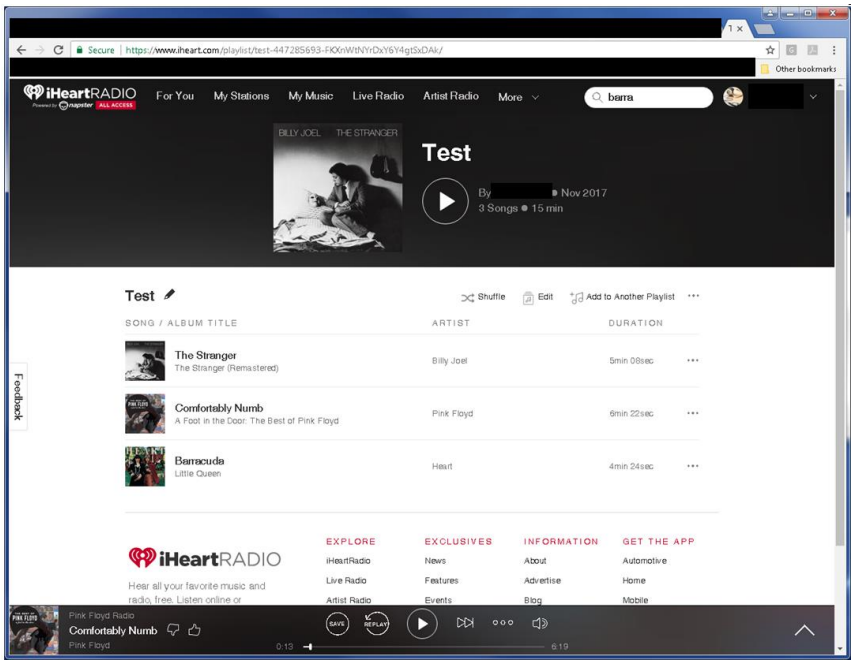




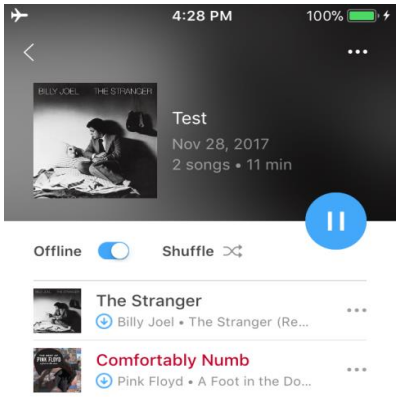
See iHeartRadio Application.

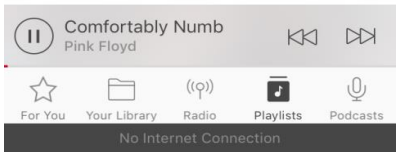
As another example, the Accused Instrumentalities include Realm Object Server. *See* https://tech.iheart.com/performance-comparison-of-realm-and-sqlite-on-ios-6df1d51e6a07 ("We've been using Realm Mobile Database for a while to achieve offline mode, which is a core feature of our brand new All Access subscription."). As such, when Realm client synchronizes, "it will establish a network connection with the server in the background." *See* https://docs.realm.io/sync/using-synced-realms/syncing-data#monitoring-sync-progress. Moreover, when the network connection is available, clients reconnect to synchronize changes. *See* https://realm.io/solutions/offline-first/. (e.g., "The underlying Realm synchronization services run in the background and even restarts and restores synchronization in the event of a lost network connection." "When an app reconnects to the network, changes saved locally are synced back to the server. Conflicts that arise are handled automatically with predictable rules for consistent user experiences.").

68. The Accused instrumentalities include a communication apparatus comprising "an editor configured to select certain data to be transferred and to edit the management information based on the selection without regard to the connection of the communication apparatus and the apparatus." For example, the Accused Instrumentalities provide a mechanize for editing the user's playlist via the web application without regard to the internet connection of the user's iOS or Android devices.



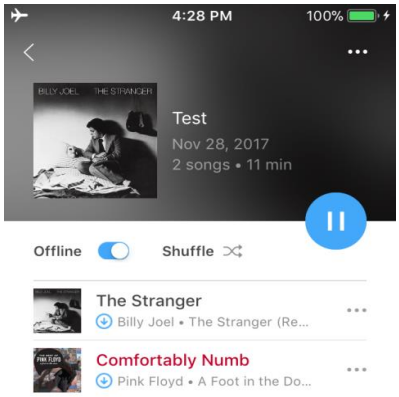
See iHeartRadio Application.

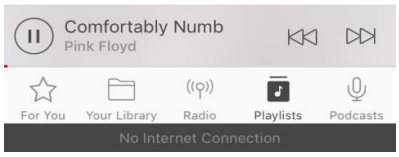




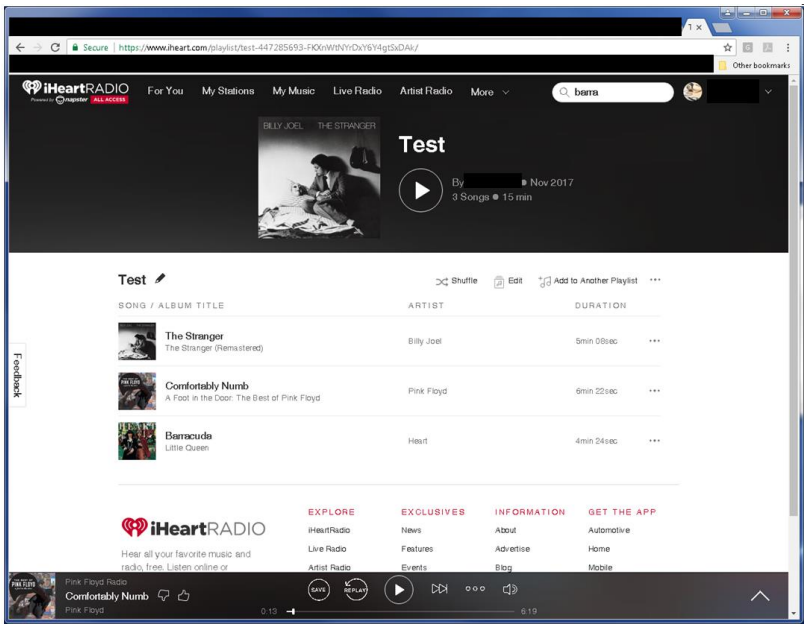
See iHeartRadio Application.

69. The Accused instrumentalities include a communication apparatus comprising "a controller configured to control transfer of the selected data stored in the communication apparatus to the apparatus via the communicator based on the management information edited by the editor when the detector detects that the communication apparatus and the apparatus are connected." For instance, the Accused Instrumentalities include Realm Platform, which uses subscriptions to push changes to all subscribing clients. *See* https://docs.realm.io/server/what-is-realm-platform. (e.g., "When data changes occur the server will reevaluate existing subscriptions and push the changes to all subscribing clients."). *See* https://tech.iheart.com/performance-comparison-of-realm-and-sqlite-on-ios-6df1d51e6a07 ("We've been using Realm Mobile Database for a while to achieve offline mode, which is a core feature of our brand new All Access subscription."). As another example, when iHeartRadio's web application makes edits to the user's playlist while the user's iOS or Android device is offline, the playlist edits are automatically transferred to the user's iOS or Android device.

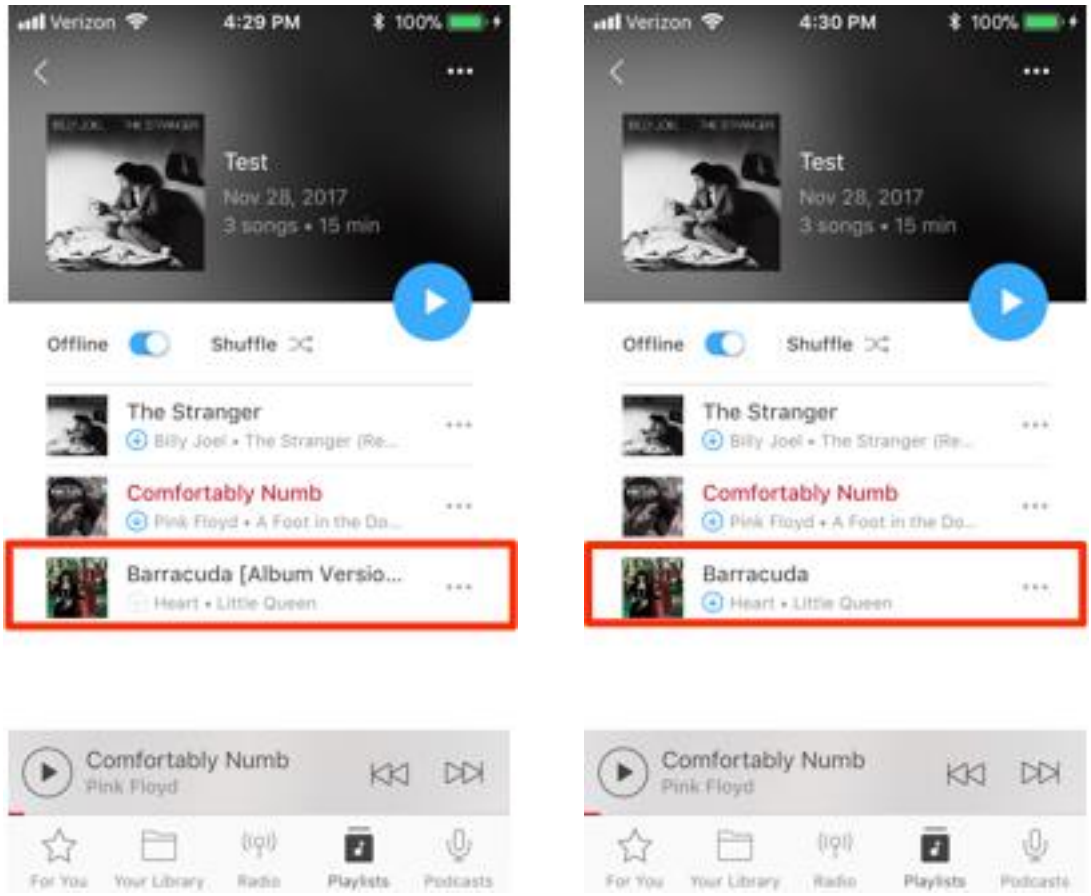




See iHeartRadio Application.

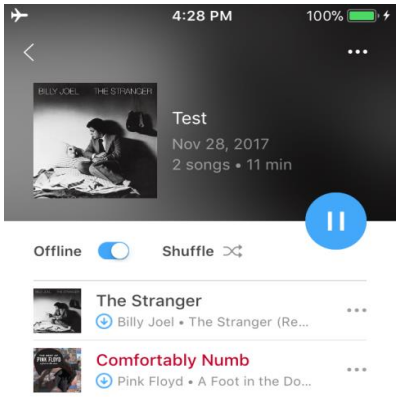


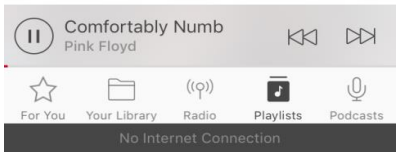
See iHeartRadio Application.



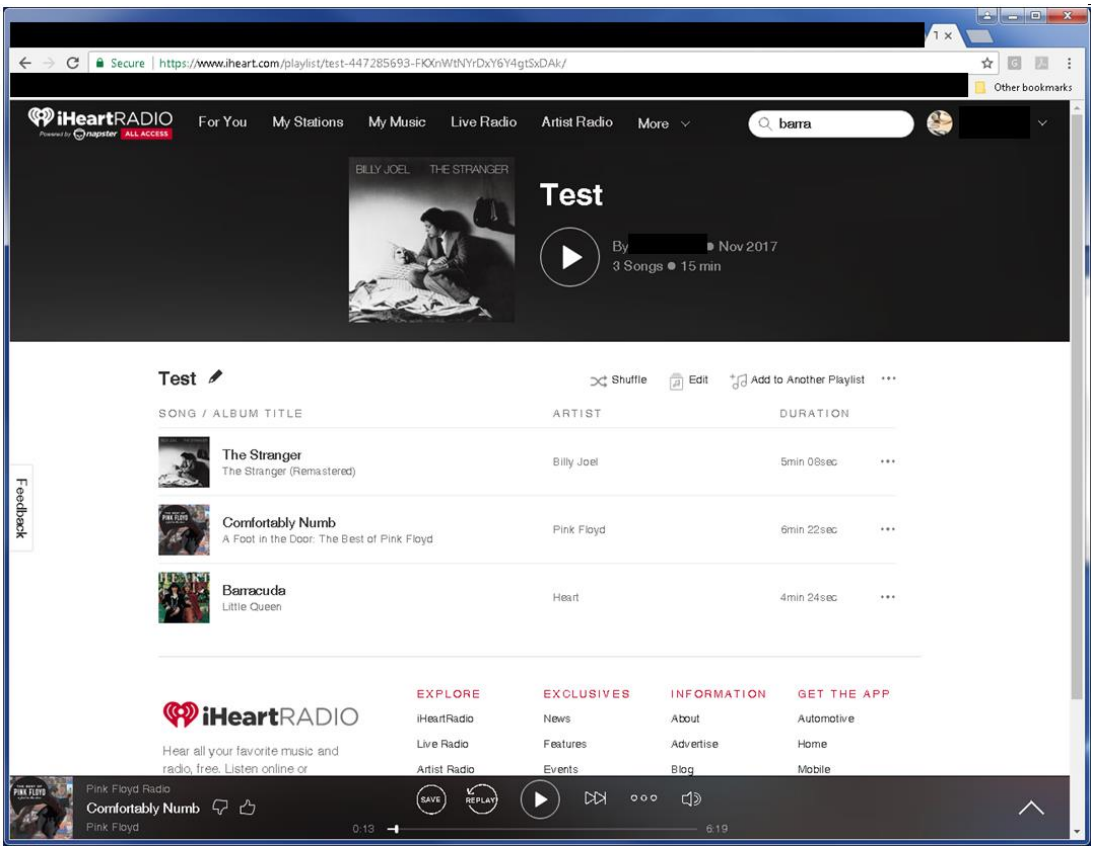
See iHeartRadio Application. (emphasis added).

70. The Accused instrumentalities include a communication apparatus comprising a controller configured to "compare the management information edited by the editor with management information of data stored in the apparatus." For instance, if a playlist is edited in iHeartRadio web application to add a new song, iHeartRadio application running on the mobile device will compare songs in the web and mobile applications and only synchronize the newly added song.

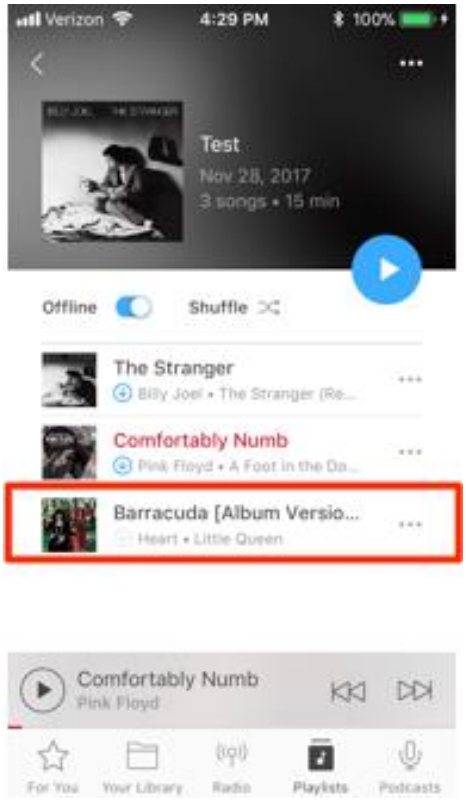




See iHeartRadio Application.



See iHeartRadio Application.



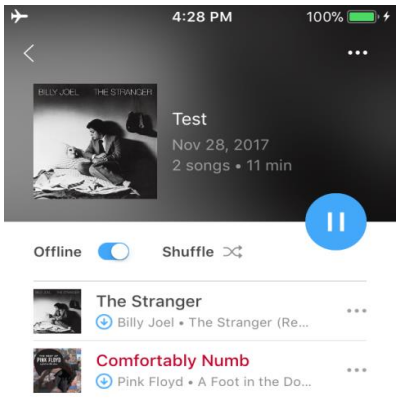
See iHeartRadio Application. (emphasis added).

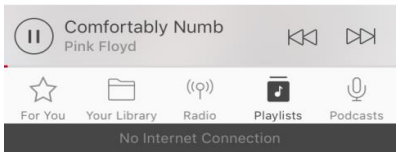
71. The Accused instrumentalities include a communication apparatus comprising a controller configured to "determine a size of the selected data in the communication apparatus." For example, the Accused Instrumentalities determine the size of the music file by comparing it to the maximum allowed size. (e.g., if (REALM_UNLIKELY(value.size() > ArrayBlob::max_binary_size)).

```
3410  void Table::set(size_t col_ndx, size_t ndx, BinaryData value, bool is_default)
3411  {
3412      if (REALM_UNLIKELY(value.size() > ArrayBlob::max_binary_size))
3413          throw LogicError(LogicError::binary_too_big);
3414      set_binary_big(col_ndx, ndx, value, is_default);
3415  }
```

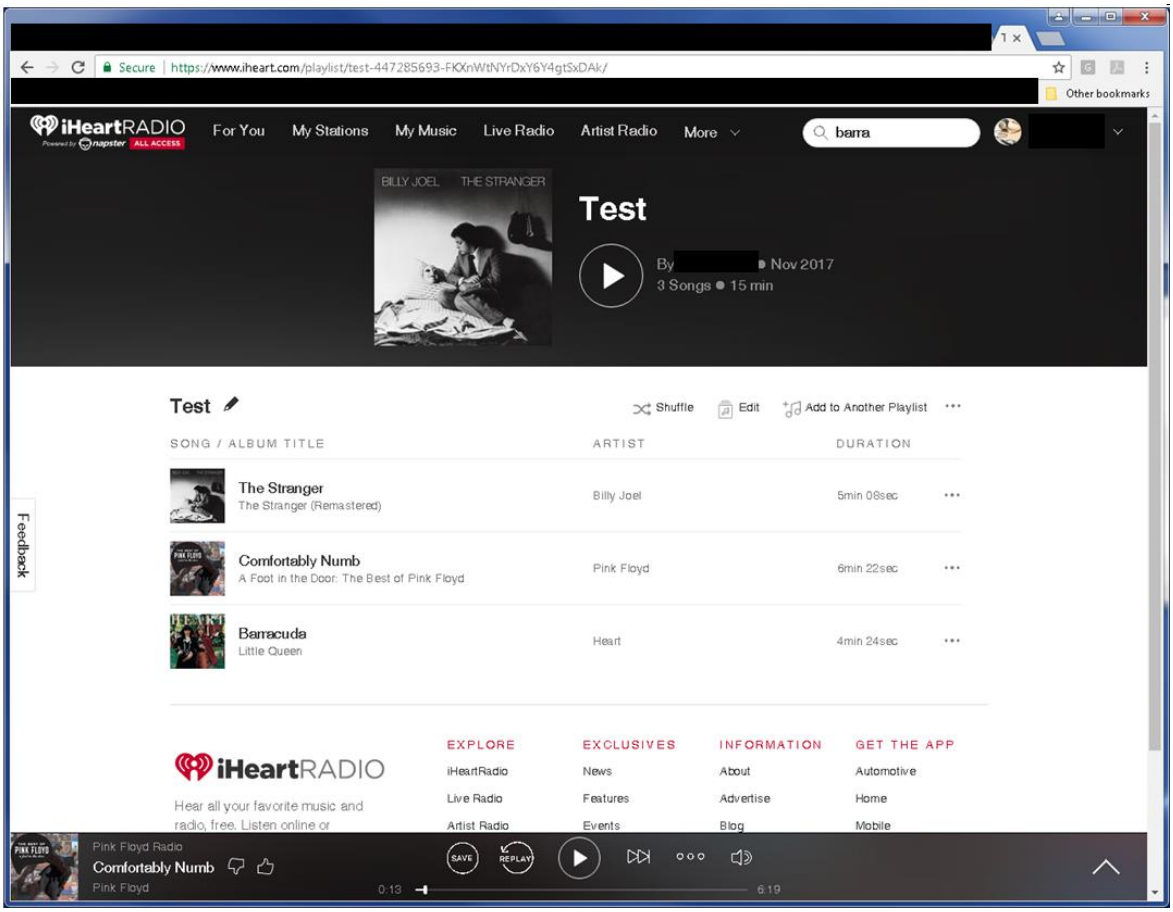
https://github.com/realm/realm-core/blob/dc4f9e90cd0f303c814ec44a0fb8f0d2e432a5aa/src/realm/table.cpp#L3409-L3415

72. The Accused instrumentalities include a communication apparatus comprising a controller configured to "transmit data in the communication apparatus based on result of the comparison and the determination." For example, the Accused Instrumentalities include Realm Platform, which uses subscriptions to push changes to all subscribing clients. *See* https://docs.realm.io/server/what-is-realm-platform. (e.g., "When data changes occur the server will reevaluate existing subscriptions and push the changes to all subscribing clients."). *See* https://tech.iheart.com/performance-comparison-of-realm-and-sqlite-on-ios-6df1d51e6a07 ("We've been using Realm Mobile Database for a while to achieve offline mode, which is a core feature of our brand new All Access subscription."). As another example, when iHeartRadio's web application makes edits to the user's playlist while the user's iOS or Android device is offline, the playlist edits are automatically transmitted to the user's iOS or Android device.

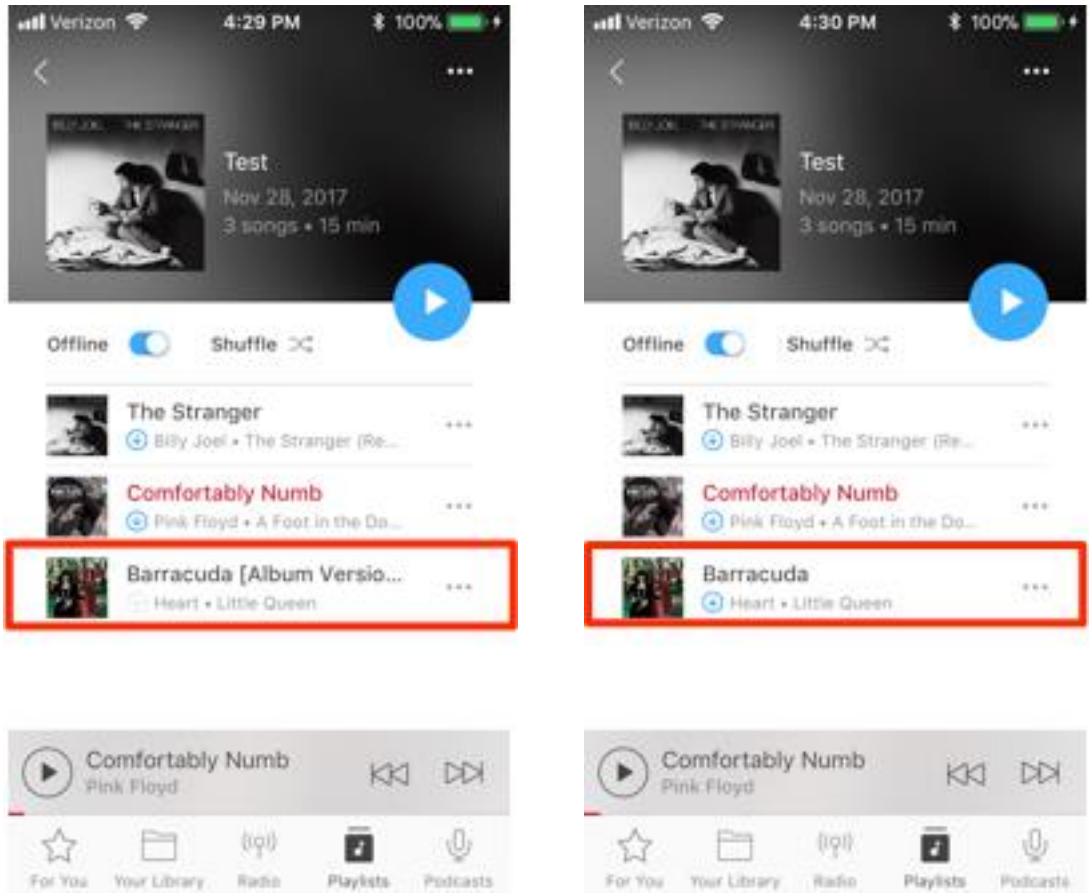




See iHeartRadio Application.



See iHeartRadio Application.



See iHeartRadio Application. (emphasis added).

73. Defendant has had knowledge of the ’751 Patent and its infringement since at least the filing of the original Complaint in this action, or shortly thereafter, including by way of this lawsuit. By the time of trial, Defendant will have known and intended (since receiving such notice) that its continued actions would actively induce and contribute to the infringement of the claims of the ’751 Patent.

74. Defendant’s affirmative acts of making, using, selling, offering for sale, and/or importing the Accused Instrumentalities have induced and continue to induce users of the Accused Instrumentalities to use the Accused Instrumentalities in their normal and customary way to infringe the claims of the ’751 Patent. Use of the Accused

Instrumentalities in their ordinary and customary fashion results in infringement of the claims of the ’751 Patent.

75. For example, Defendant explains to customers the benefits of using the Accused Instrumentalities, such as by touting their advantages of synchronizing settings among multiple devices. Defendant also induces its customers to use the Accused Instrumentalities to infringe other claims of the ’751 Patent. Defendant specifically intended and was aware that the normal and customary use of the Accused Instrumentalities on compatible systems would infringe the ’751 Patent. Defendant performed the acts that constitute induced infringement, and would induce actual infringement, with the knowledge of the ’751 Patent and with the knowledge, or willful blindness to the probability, that the induced acts would constitute infringement. On information and belief, Defendant engaged in such inducement to promote the sales of the Accused Instrumentalities, e.g., through its user manuals, product support, marketing materials, demonstrations, installation support, and training materials to actively induce the users of the accused products to infringe the ’751 Patent. Accordingly, Defendant has induced and continues to induce end users of the accused products to use the accused products in their ordinary and customary way with compatible systems to make and/or use systems infringing the ’751 Patent, knowing that such use of the Accused Instrumentalities with compatible systems will result in infringement of the ’ 751 Patent. Accordingly, Defendant has been (since at least as of filing of the original complaint), and currently is, inducing infringement of the ’751 Patent, in violation of 35 U.S.C. § 271(b).

76. For similar reasons, Defendant also infringes the ’751 Patent by supplying or causing to be supplied in or from the United States all or a substantial portion of the

components of the Accused Instrumentalities, where such components are uncombined in whole or in part, in such manner as to actively induce the combination of such components outside of the United States in a manner that would infringe the ’751 Patent if such combination occurred within the United States. For example, Defendant supplies or causes to be supplied in or from the United States all or a substantial portion of the hardware (e.g., separate iHeartRadio servers) and software (e.g., iHeartRadio application) components of the Accused Instrumentalities in such a manner as to actively induce the combination of such components (e.g., by instructing users to combine multiple iHeartRadio into an infringing system) outside of the United States.

77. Defendant has also infringed, and continues to infringe, claims of the ’751 Patent by offering to commercially distribute, commercially distributing, making, and/or importing the Accused Instrumentalities, which are used in practicing the process, or using the systems, of the ’751 Patent, and constitute a material part of the invention. Defendant knows the components in the Accused Instrumentalities to be especially made or especially adapted for use in infringement of the ’751Patent, not a staple article, and not a commodity of commerce suitable for substantial noninfringing use. For example, the ordinary way of using the Accused Instrumentalities infringes the patent claims, and as such, is especially adapted for use in infringement. Accordingly, Defendant has been, and currently is, contributorily infringing the ’751 Patent, in violation of 35 U.S.C. § 271(c).

78. Defendant also indirectly infringes the ’751 Patent by supplying or causing to be supplied in or from the United States components of the Accused Instrumentalities that are especially made or especially adapted for use in infringing the ’ 751 Patent and are not a staple article or commodity of commerce suitable for substantial non-infringing use,

and where such components are uncombined in whole or in part, knowing that such components are so made or adapted and intending that such components are combined outside of the United States in a manner that would infringe the '751 Patent if such combination occurred within the United States. Because the Accused Instrumentalities are designed to operate as the claimed system and apparatus, the Accused Instrumentalities have no substantial non-infringing uses, and any other uses would be unusual, far-fetched, illusory, impractical, occasional, aberrant, or experimental. For example, Defendant supplies or causes to be supplied in or from the United States all or a substantial portion of the hardware (e.g., separate iHeartRadio servers) and software (e.g., iHeartRadio application) components that are especially made or especially adapted for use in the Accused Instrumentalities, where such hardware and software components are not staple articles or commodities of commerce suitable for substantial noninfringing use, knowing that such components are so made or adapted and intending that such components are combined outside of the United States, as evidenced by Defendant's own actions or instructions to users in, e.g., combining multiple iHeartRadio into infringing systems, and enabling and configuring the infringing functionalities of the Accused Instrumentalities.

79. As a result of Defendant's infringement of the '751 Patent, Plaintiff Data Scape is entitled to monetary damages in an amount adequate to compensate for Defendant's infringement, but in no event less than a reasonable royalty for the use made of the invention by Defendant, together with interest and costs as fixed by the Court.

COUNT III

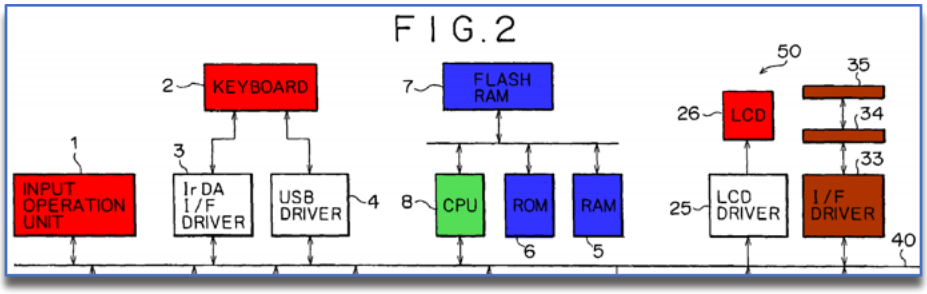
INFRINGEMENT OF U.S. PATENT NO. 9,380,112

80. Data Scape is the owner by assignment of United States Patent No. 9,380,112 ("the '112 Patent") entitled "Communication System And Its Method and Communication Apparatus And Its Method." The '112 Patent was duly and legally issued by the United States Patent and Trademark Office on June 28, 2016. A true and correct copy of the '112 Patent is included as Exhibit C.

81. In their most basic form, and ignoring many claim limitations, the claims of the '112 Patent are directed to a data synchronization apparatus configured to recognize an identifier of a portable device and a list of digital musical content stored therein, and selectively transfer only edited portions of the musical content to the portable device and assure the content is played back as a collection. The claims are not directed to abstract ideas. The claims provide technical solutions to technical problems, and, thus, are patent-eligible.

82. As the '112 Patent states, the inventor, Akihiro Morohashi, working at Sony Corporation, aimed to solve the problems skilled artisans in 1999 faced trying to selectively transfer data between two electronic apparatuses. *E.g.,* '112 Patent, Col 2:16-54. For example, many used optical disks to accomplish this process, but that was "cumbersome" and did not enable easy or random selection of files to transfer. *Id.* at 2:25-37. And when others burned digital files into hard disk drives or semiconductor memory, those systems still required a large amount of time to selectively transfer certain digital data between electronic apparatuses. *Id.* And in any case, there was no reasonable way to selectively synchronize select digital content data between the apparatuses. *Id.* These problems were

specific to the technological process of selective digital-data transfer between electronic apparatuses. *Id.* at 1:42-2:37. And with over 28 columns of text and 13 figures, including Figure 2 below, the inventor taught various technical solutions involving an unconventional server with a controller configured with circuitry to compare certain digital management information:



83. Enabled by these teachings, the patents recite in their claims various technical solutions to the existing technological problems and shortcomings. For example, various claims require the then-unconventional system of electronic components configured to use a digital "identifier" to compare, edit and selectively transfer separate lists of digital musical content data between two apparatuses. See, e.g., '112 Patent, Claim 1 ("[a] communication apparatus configured to transfer data to a portable apparatus . . . comprising … [b] a memory configured to store a first list of musical content data; . . . [c] circuitry configured to …[i] edit the first list of musical content data . . . [ii] compare the edited first list of musical content data a list of musical content data stored in the portable apparatus; [iii] control transfer of selected musical content data stored in the communication apparatus to the portable apparatus . . . based on the result of the comparison . . .; and [iv] control playback of musical content data based on the edited first list of musical content data so that . . . [the] musical content data is played back as a collection, the edited first list of musical content data being associated with an identifier stored in the communication apparatus that uniquely identifies the portable apparatus.").

84. As such, the claims of the '112 patent generally relate, in their most basic form, and ignoring many claim limitations, to the concept of data synchronization as understood by a person of ordinary skill in the art. *See, e.g.*, https://www.techopedia.com/definition/1006/data-synchronization ("Data synchronization is the process of maintaining the consistency and uniformity of data instances across all consuming applications and storing devices. It ensures that the same copy or version of data is used in all devices - from source to destination."); https://www.pcmag.com/encyclopedia/term/40854/data-synchronization ("Keeping data in two or more electronic devices up-to-date so that each repository contains the identical information. Data in handheld devices and laptops often require synchronization with the data in a desktop machine or server."); https://en.wikipedia.org/wiki/Data_synchronization ("Data synchronization is the process of establishing consistency among data from a source to a target data storage and vice versa and the continuous harmonization of the data over time.").

85. The '112 patent and its file history make clear that each included independent-claim limitations were not in the prior art, let alone well-understood, routine, and conventional. This includes the claimed communication apparatus configured to transfer data to a portable apparatus comprising (1) a memory configured to store a first list of musical content data and (2) circuitry configured to (a) edit the first list of musical content data, (b) compare the edited first list of musical content data a list of musical content data stored in the portable apparatus, (c) control transfer of selected musical content data stored in the communication apparatus to the portable apparatus based on the result of the comparison, and (d) control playback of musical content data based on the

edited first list of musical content data so that the musical content data is played back as a collection, the edited first list of musical content data being associated with an identifier stored in the communication apparatus that uniquely identifies the portable apparatus. And the dependent claims also include limitations that were not in the prior art, let alone well-understood, routine, and conventional. *See, e.g.*, limitations of claims 2, 3, 4, 5, 6, 7, and 8 of the '112 patent.

86. For instance, claim 1 of the '112 patent recites:

> 1. A communication apparatus configured to transfer data to a portable apparatus, the communication apparatus comprising:
>
> a memory configured to store a first list of musical content data;
>
> a data interface configured to detect a connection between the communication apparatus and the portable apparatus; and
>
> circuitry configured to
>
> edit the first list of musical content data based on input from a user without regard to the connection of the communication apparatus and the portable apparatus,
>
> compare the edited first list of musical content data with a list of musical content data stored in the portable apparatus,
>
> **control transfer of selected musical content data stored in the communication apparatus to the portable apparatus via the data interface based on a result of the comparison after the connection of the communication apparatus and the portable apparatus is detected, and**

control playback of musical content data based on the edited first list of musical content data so that the musical content data referenced in the edited first list of musical content data is played back as a collection, the edited first list of musical content data being associated with an identifier stored in the communication apparatus that uniquely identifies the portable apparatus.

87. The limitations highlighted above in combination (e.g., "control playback of musical content data based on the edited first list of musical content data so that the musical content data referenced in the edited first list of musical content data is played back as a collection, the edited first list of musical content data being associated with an identifier stored in the communication apparatus that uniquely identifies the portable apparatus.") are not found in the claims of the '675 patent or the other asserted patents.

88. Further, the file history confirms that these limitations were inventive over prior art and not well-understood, routine, and conventional. Specifically, after these limitations were added to the claims of the '581 Patent, the patent claims were allowed by the Examiner. *See* '112 File History, Feb. 26, 2016.

89. Likewise, the specification teaches that controlling transfer and playback of musical content data based on comparison of edited list was inventive over the prior art, and not well-understood, routine, and conventional. *E.g.*, '675 patent at 5:14-6:9, 7:9-8:32, 11:11-12:4, 13:59-15:6, 19:57-22:7, 22:8-67.[3]

[3] The '675 patent is related to (and share substantially the same specification as) the '112, '614, and '614 patents. Accordingly, citations to the '675 patent is applicable to the '112, '614, and '614 patents, and vice versa.

90. Claim 1 of the ‘112 patent does not claim a result, but instead specific technology using specific and non-conventional processes and machines, including:

> 1. A communication **apparatus** configured to transfer data to a **portable apparatus**, the communication apparatus comprising:
>
> a **memory** configured to store a first list of musical content data;
>
> a **data interface** configured to detect a connection between the **communication apparatus** and the **portable apparatus**; and
>
> **circuitry configured to**
>
> edit the first list of musical content data based on input from a user without regard to the connection of the **communication apparatus** and the **portable apparatus**,
>
> compare the edited first list of musical content data with a list of musical content data stored in the **portable apparatus**,
>
> control transfer of selected musical content data stored in the **communication apparatus** to the **portable apparatus** via the **data interface** based on a result of the comparison after the connection of the **communication apparatus** and the **portable apparatus** is detected, and
>
> control playback of musical content data based on the edited first list of musical content data so that the musical content data referenced in the edited first list of musical content data is played back as a collection, the edited first list of musical content data being associated with an identifier stored in the **communication apparatus** that uniquely identifies the **portable apparatus**.

91. Claim 1 is not representative of all claims of the '112 patent. For example, dependent claims contain limitations not found in independent claims. For example, claim 2 recites "the circuitry is further configured to wait before transferring the selected musical content data until after a judgment has been made that an identifier of the portable apparatus corresponds to the identifier that is (a) stored in the communication apparatus and (b) associated with the edited first list of musical content data." As another example, claim 5 recites "the selected musical content data transferred to the portable apparatus are compressed data in AAC (Advanced Audio Codec) format." As another example, claim 6 recites "the circuitry is further configured to: process a Table of Contents (TOC) from a Compact Disc (CD), send information associated with the TOC to an external server, and receive information associated with the CD from the external server." As another example, claim 7 recites "the circuitry is further configured to: receive an identifier of the portable apparatus via the data interface, judge whether the identifier of the portable apparatus corresponds to the identifier stored in the communication apparatus that uniquely identifies the portable apparatus, and allow the transfer of the selected musical content data when the identifier of the portable apparatus corresponds to the identifier stored in the communication apparatus." These and other limitations are inventive over the prior art and not well-understood, routine, and conventional.

92. In a patent filed by Western Digital in 2004, it admitted there was still a technical "**need for a system that allows quick and easy communication …**that allows collaborative use of remote devices by multiple users…" U.S. Patent No. 7,546,353 (emphasis added). That was because, even in 2004, it was "not uncommon [] to have separate computing systems [which] requires that the common data all be kept current, i.e.,

with the latest version of each common file, as it is typical to update and edit files. **This in itself can be an enormously time consuming and tedious**…" *Id*. (emphasis added). And Western Digital even cited Data Scape's patent, which it acknowledged was in the same technical field.

93. Similarly, in a 2005-filed patent application that also cites Data Scape's earlier patents *in the same technical field*, Microsoft made clear that the selective transfer of digital data between two devices was a technical problem one year later. U.S. Patent Application No. 20060288036 (data transfer involved "a number of processes, such as enumeration of content on each device … and efficient metadata retrieval based on user queries. Thus, **user experience could also be enhanced by providing optimization for the transfer enumeration protocol between the two devices**.") (emphasis added) (available at https://patents.google.com/patent/US20060288036?oq=20060288036).

94. And in 2006, this time in a patent application filed by Apple, Steve Jobs and five Apple computer scientists represented to the USPTO that there was still "**a continuing need for improved techniques to transfer** and synchronize media data on host computers and/or media players." U.S. Patent Application 20080086494 (emphasis added). And Apple, too, cited Data Scape's asserted patents, which, again, were acknowledged to be *in the same technical field*. *Id* (available at https://patents.google.com/patent/US20080086494A1/en?oq=20080086494).

95. The statements in these later-filed patent applications confirm that Data Scape's patent at issue here are directed to technical solutions to technical problems, and improves computer functionalities. The statements in these later-filed patent applications also confirm that the limitations recited in Data Scape's patent at issue here are not well-

understood, routine, or conventional, and that the claims are not directed to other ideas "identified by the courts as abstract ideas," that recently have been synthesized into three groups: "(a) mathematical concepts"; "(b) methods of organizing human activity"; or "(c) mental processes." 84 Fed. Reg. 50 (Jan. 7, 2019) (2019 PTO §101 Guidance, citing and surveying post-*Alice* decisions).

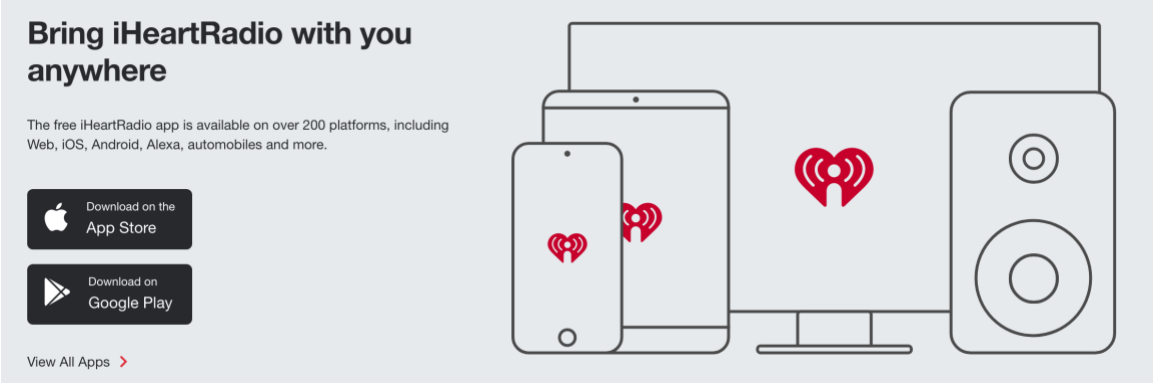
96. Defendant has offered for sale, sold and/or imported into the United States products and services that infringe the '112 patent, and continues to do so. By way of illustrative example, these infringing products and services include, without limitation, Defendant's products and services, *e.g.*, iHeartRadio and all versions and variations thereof since the issuance of the '112 Patent ("Accused Instrumentalities").

97. Defendant has directly infringed and continues to infringe the '112 Patent, for example, by making, selling, offering for sale, and/or importing the Accused Instrumentalities, and through its own use and testing of the Accused Instrumentalities. Defendant uses the Accused Instrumentalities for its own internal non-testing business purposes, while testing the Accused Instrumentalities, and while providing technical support and repair services for the Accused Instrumentalities to its customers.

98. For example, the Accused Instrumentalities infringe Claim 1 (as well as other claims) of the '112 Patent. One non-limiting example of the Accused Instrumentalities' infringement is presented below:

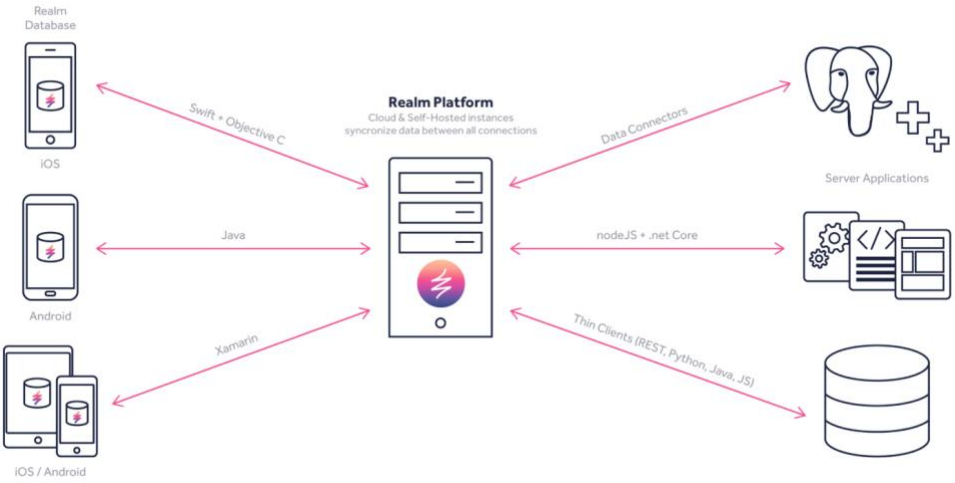
99. The Accused instrumentalities include "a communication apparatus configured to transfer data to a portable apparatus." For example, the Accused Instrumentalities communicate musical content from live radio stations, custom artist stations and podcasts to mobile phones, tables, and other connected devices. *See*, e.g.,

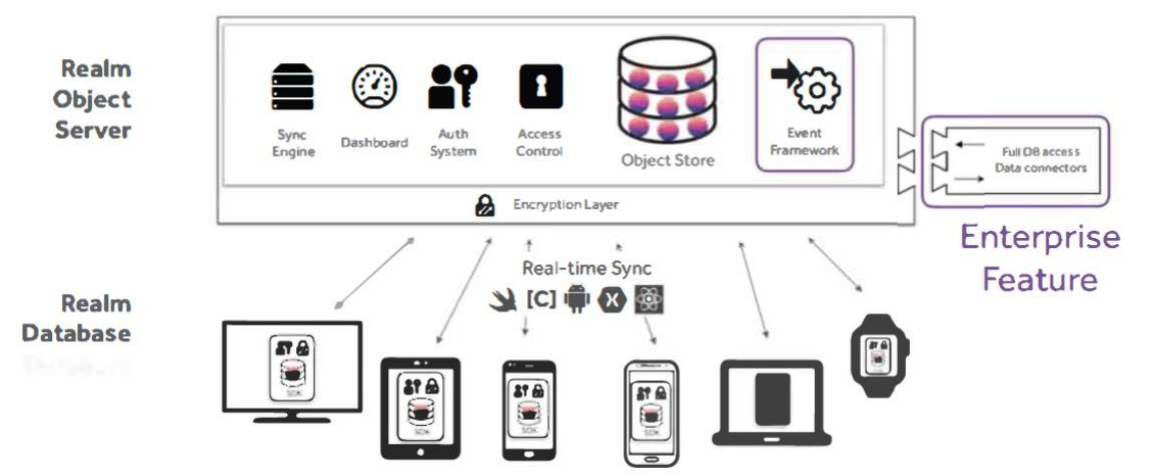
https://www.iheartmedia.com/iheartmedia/iheartradio ("iHeartRadio connects fans to their favorite music, radio and personalities through thousands of live radio stations from across the country, millions of custom artist stations and podcasts from radio's biggest talents. Users have access to a catalog of millions of songs to create their custom stations, playing tracks from their favorite artists and similar artists, commercial free. HeartRadio is available online, on mobile phones and tablets, in cars and on connected devices including Xbox, PlayStation and smart TVs."). The Accused Instrumentalities include user devices such as smartphones, tables, or other connected devices.



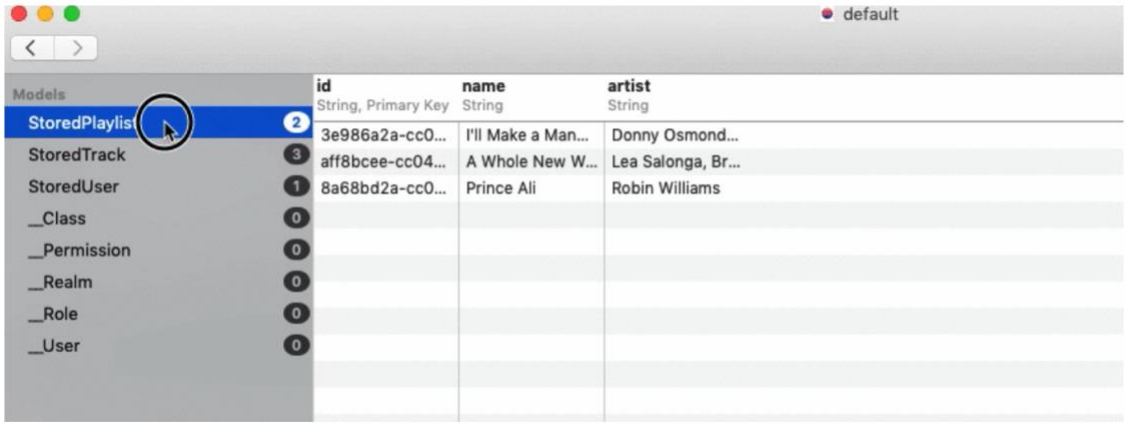
See https://www.iheart.com.

100. The Accused instrumentalities include "the communication apparatus comprising: a memory configured to store a first list of musical content data." For example, the Accused Instrumentalities include Realm Object Server, which includes an object store. *See* https://tech.iheart.com/performance-comparison-of-realm-and-sqlite-on-ios-6df1d51e6a07 ("We've been using Realm Mobile Database for a while to achieve offline mode, which is a core feature of our brand new All Access subscription."). *See* https://docs.realm.io/server/what-is-realm-platform





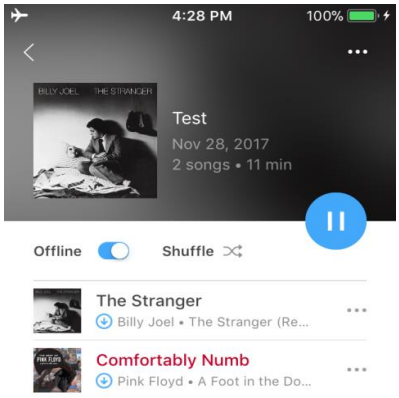
See Build Better Apps, Faster with Real. An Overview of the Real Platform at page 9. The Object Store "is a common set of APIs that enables cross-platform compatible data storage." *See* Build Better Apps, Faster with Real. An Overview of the Real Platform at page 9. More specifically, in Realm Object Server "[A]ll data represented on the client devices is mirrored on the server in the exact same live object format." *See* Build Better Apps, Faster with Real. An Overview of the Real Platform at page 9. As another example, the Accused Instrumentalities store user's playlists and tracks.

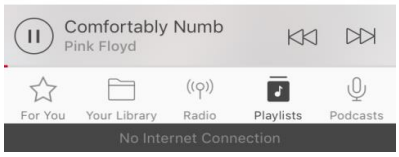


Adding our objects was successful

See https://tech.iheart.com/using-realm-with-swift-and-codable-10a825042e63.

101. The Accused instrumentalities include "a data interface configured to detect a connection between the communication apparatus and the portable apparatus." For example, the Accused instrumentalities include a network interface configured to detect whether Internet connection is unavailable.

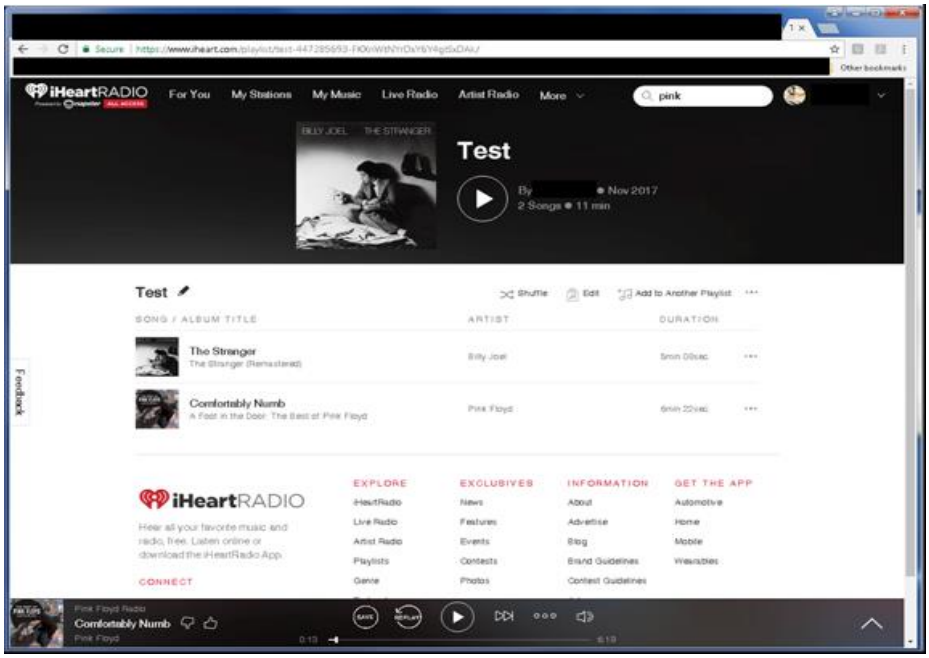




See iHeartRadio Application.

As another example, the Accused Instrumentalities include Realm Object Server. *See* https://tech.iheart.com/performance-comparison-of-realm-and-sqlite-on-ios-6df1d51e6a07 ("We've been using Realm Mobile Database for a while to achieve offline mode, which is a core feature of our brand new All Access subscription."). As such, when Realm client synchronizes, "it will establish a network connection with the server in the background." *See* https://docs.realm.io/sync/using-synced-realms/syncing-data#monitoring-sync-progress. Moreover, when the network connection is available, clients reconnect to synchronize changes. *See* https://realm.io/solutions/offline-first/. (e.g., "The underlying Realm synchronization services run in the background and even restarts and restores synchronization in the event of a lost network connection." "When an app reconnects to the network, changes saved locally are synced back to the server. Conflicts that arise are handled automatically with predictable rules for consistent user experiences.").

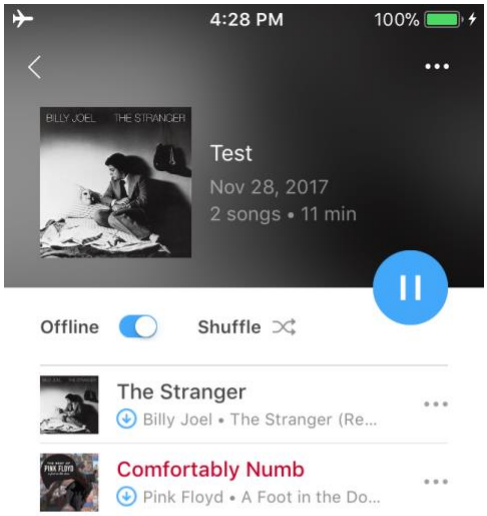
102. The Accused instrumentalities include "circuitry configured to edit the first list of musical content data based on input from a user without regard to the connection of the communication apparatus and the portable apparatus." For example, the Accused Instrumentalities provide a mechanize for editing the user's playlist via the web application without regard to the internet connection of the user's iOS or Android devices.

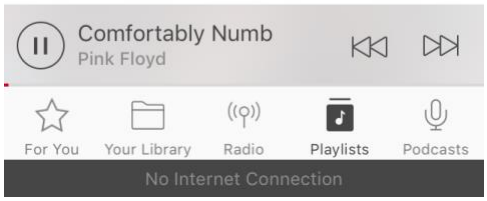


See iHeartRadio Application.

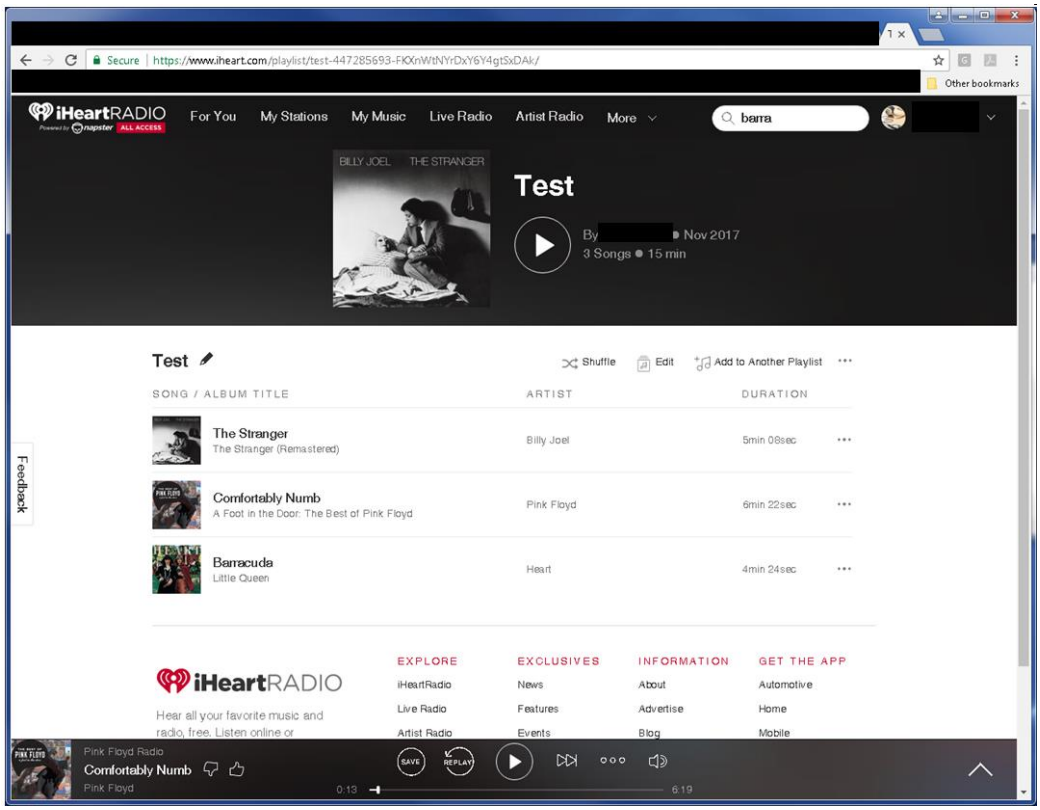
103. The Accused instrumentalities include circuitry configured to "compare the edited first list of musical content data with a list of musical content data stored in the portable apparatus." For example, the Accused Instrumentalities provide a mechanism to synchronize user playlists across all devices. In particular, the Accused Instrumentalities utilize Realm Platform, which uses subscriptions to compare and synchronize changes to all subscribing clients. *See* https://docs.realm.io/server/what-is-realm-platform. (e.g., "Instead, the client application must choose, or subscribe to, which subset of data in the corresponding Realm on the server it wants to synchronize. Subscribing to data is easy, as it utilizes Realm's query system. Applications can create any number of data queries, which will be transmitted to the server and evaluated. The query results will then be synced to the application. The underlying sync protocol ensures that if an object matches several queries an application has subscribed to, the server will only send that object once. Subscriptions are automatically persisted and maintained by the server. When data changes occur the

server will reevaluate existing subscriptions and push the changes to all subscribing clients."). *See* https://tech.iheart.com/performance-comparison-of-realm-and-sqlite-on-ios-6df1d51e6a07 ("We've been using Realm Mobile Database for a while to achieve offline mode, which is a core feature of our brand new All Access subscription."). As another example, when iHeartRadio's web application makes edits to the user's playlist while the user's iOS or Android device is offline, the playlist edits are compared and synced automatically once the user's iOS or Android device is online.

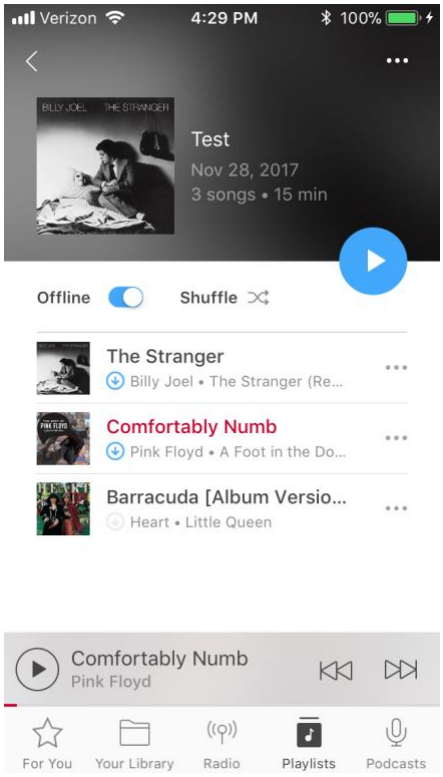




See iHeartRadio Application.

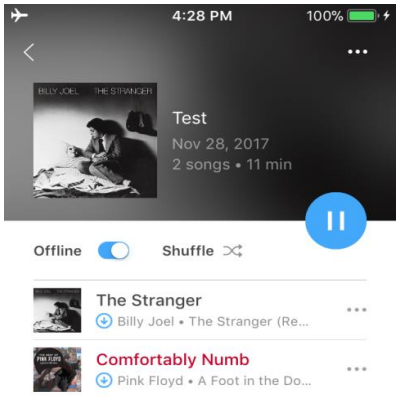


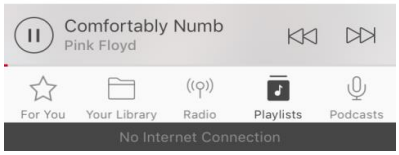
See iHeartRadio Application.



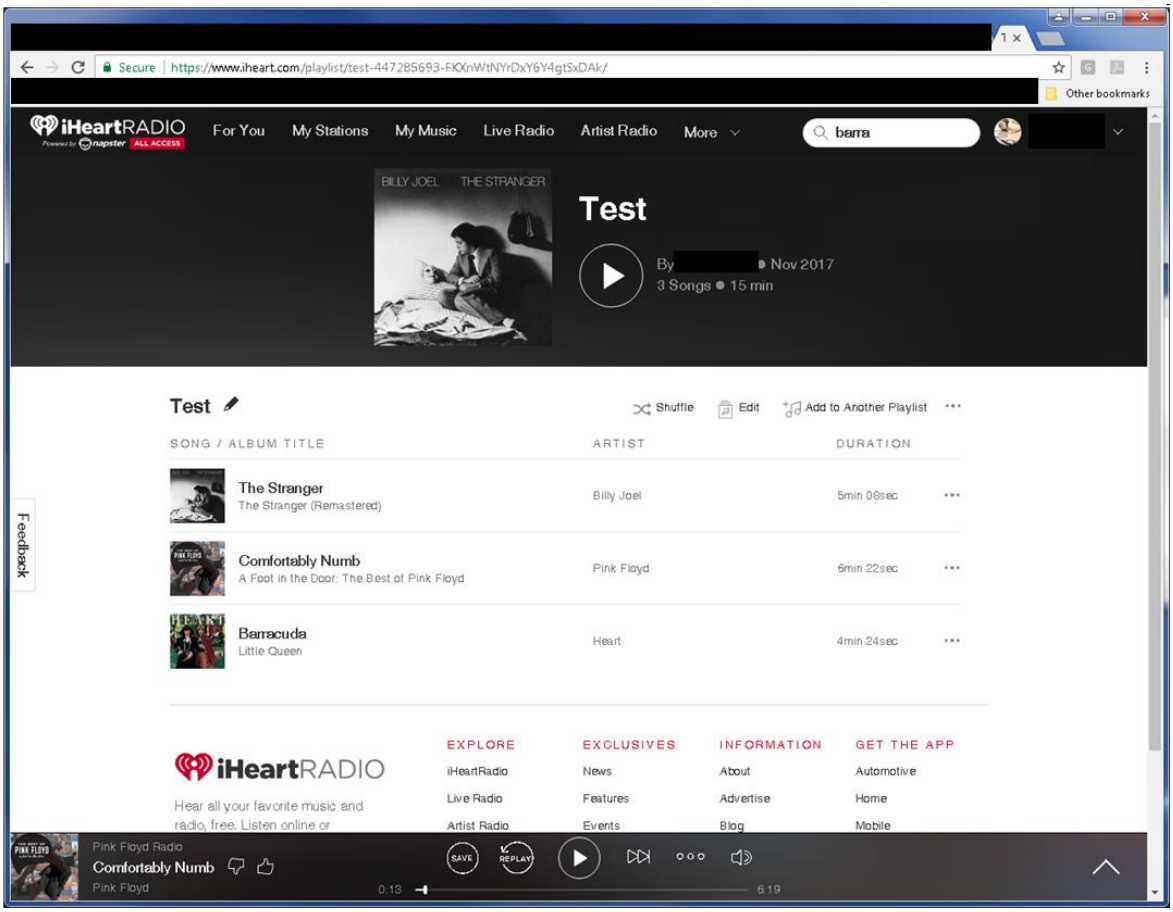
See iHeartRadio Application.

104. The Accused instrumentalities include circuitry configured to "control transfer of selected musical content data stored in the communication apparatus to the portable apparatus via the data interface based on a result of the comparison after the connection of the communication apparatus and the portable apparatus is detected." The Accused Instrumentalities include Realm Platform, which uses subscriptions to push changes to all subscribing clients. *See* https://docs.realm.io/server/what-is-realm-platform. (e.g., "When data changes occur the server will reevaluate existing subscriptions and push the changes to all subscribing clients."). *See* https://tech.iheart.com/performance-comparison-of-realm-and-sqlite-on-ios-6df1d51e6a07 ("We've been using Realm Mobile Database for a while to achieve offline mode, which is a core feature of our brand new All Access subscription."). As another example, when iHeartRadio's web application makes edits to the user's playlist while the user's iOS or Android device is offline, the playlist edits are automatically transmitted once the user's iOS or Android device is online.

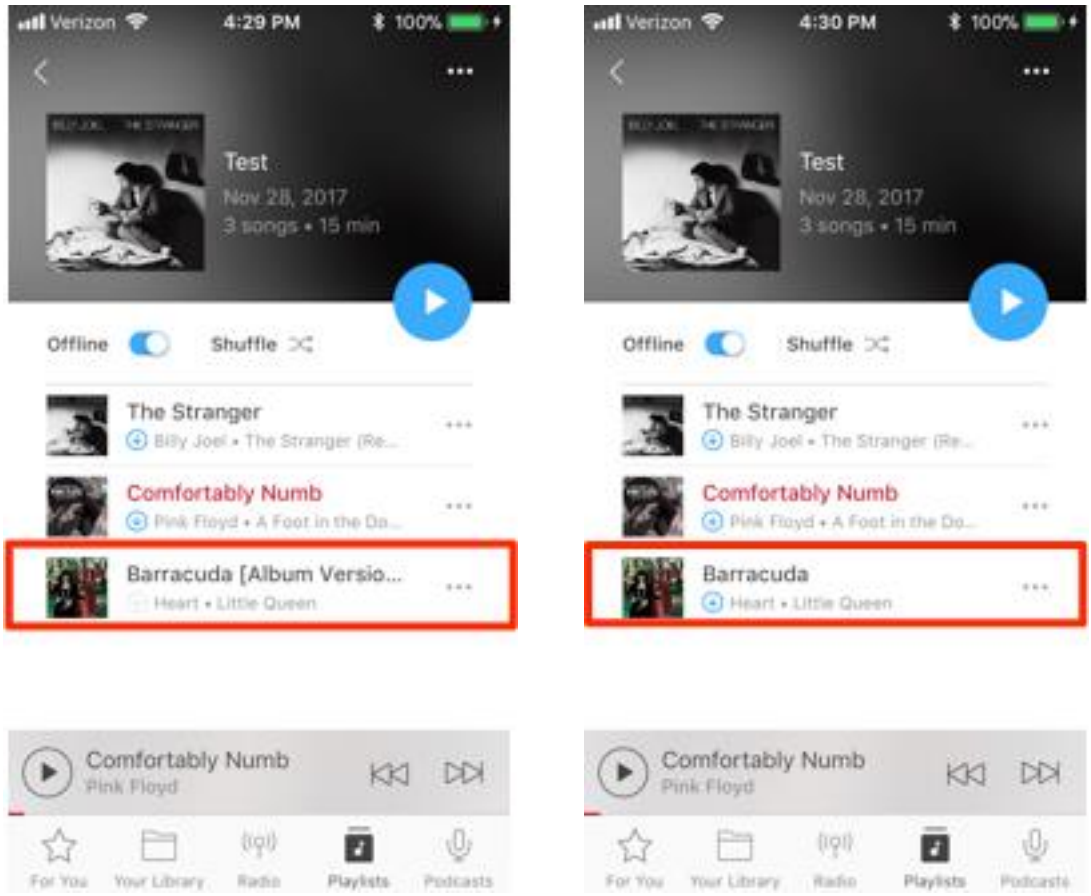




See iHeartRadio Application.

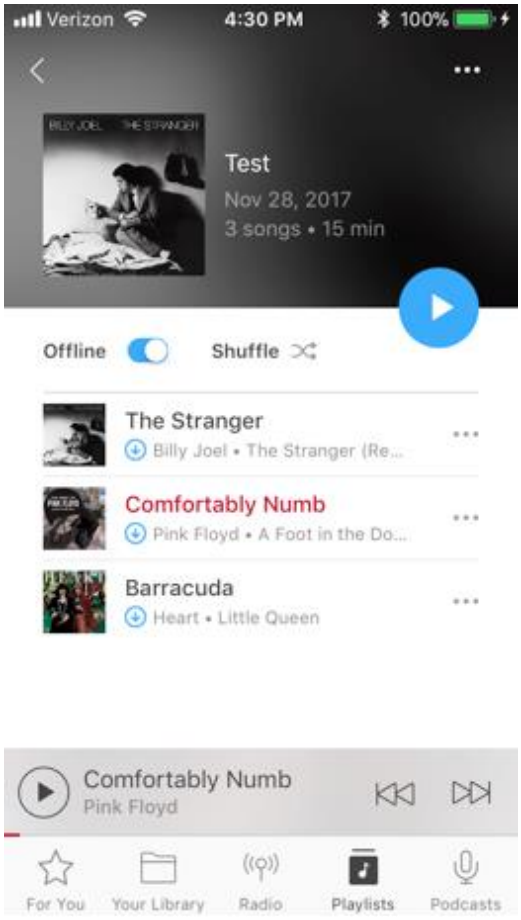


See iHeartRadio Application.



See iHeartRadio Application. (emphasis added).

105. The Accused instrumentalities include circuitry configured to "control playback of musical content data based on the edited first list of musical content data so that the musical content data referenced in the edited first list of musical content data is played back as a collection." For example, the Accused instrumentalities control playback of songs included in the user's edited playlist.



See iHeartRadio Application.

106. In the Accused instrumentalities "the edited first list of musical content data being associated with an identifier stored in the communication apparatus that uniquely identifies the portable apparatus." For example, the Accused instrumentalities use users' email address or Facebook/Google credentials to access their iHeartRadio account, which stores users' playlist.

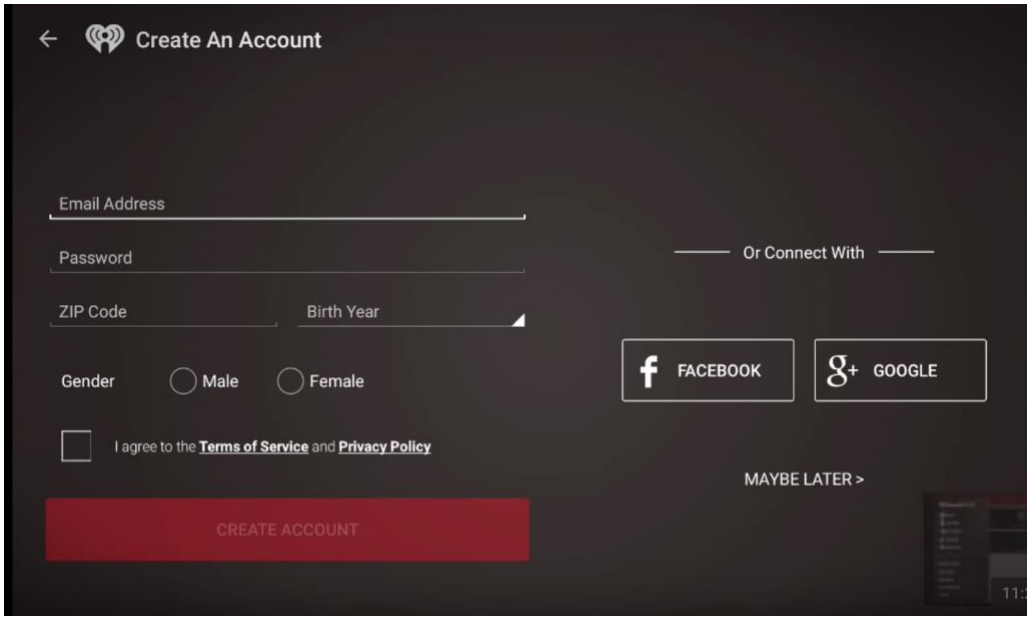
We're using Facebook to bring you the best possible listening experience!

- **Easy Access** - No new username or password to remember
- **Music Discovery** - Create Artist Radio Stations, see what your friends are listening to and discover new music much more easily
- **Share** - Discover a song or station you think a friend might enjoy? Share it with your friends
- **Auto-sync** - Your saved stations automatically sync between iHeartRadio.com and your iPhone, Android, or iPad

iHeartRadio is committed to giving users controls to manage their privacy settings:

- **Control** - You decide whether or not to make your music listening visible to friends, and what and when you post to Facebook
- **Privacy** - iHeartRadio will not use your Facebook information for any reason other than improving your experience

See https://help.iheart.com/hc/en-us/articles/228919147-Logging-in-with-Facebook



See https://www.iheart.com/ and iHeartRadio Application.

107. Defendant has had knowledge of the ’112 Patent and its infringement since at least the filing of this Complaint, or shortly thereafter, including by way of this lawsuit. By the time of trial, Defendant will have known and intended (since receiving such notice) that its continued actions would actively induce and contribute to the infringement of the claims of the ’112 Patent.

108. Defendant’s affirmative acts of making, using, selling, offering for sale, and/or importing the Accused Instrumentalities have induced and continue to induce users of the Accused Instrumentalities to use the Accused Instrumentalities in their normal and customary way to infringe the claims of the ’112 Patent. Use of the Accused Instrumentalities in their ordinary and customary fashion results in infringement of the claims of the ’112 Patent.

109. For example, Defendant explains to customers the benefits of using the Accused Instrumentalities, such as by touting their advantages of synchronizing settings among multiple devices. Defendant also induces its customers to use the Accused Instrumentalities to infringe other claims of the ’112 Patent. Defendant specifically intended and was aware that the normal and customary use of the Accused Instrumentalities on compatible systems would infringe the ’112 Patent. Defendant performed the acts that constitute induced infringement, and would induce actual infringement, with the knowledge of the ’112 Patent and with the knowledge, or willful blindness to the probability, that the induced acts would constitute infringement. On information and belief, Defendant engaged in such inducement to promote the sales of the Accused Instrumentalities, e.g., through its user manuals, product support, marketing materials, demonstrations, installation support, and training materials to actively induce the users of

the accused products to infringe the ’112 Patent. Accordingly, Defendant has induced and continues to induce end users of the accused products to use the accused products in their ordinary and customary way with compatible systems to make and/or use systems infringing the ’112 Patent, knowing that such use of the Accused Instrumentalities with compatible systems will result in infringement of the ’112 Patent. Accordingly, Defendant has been (since at least as of filing of the original complaint), and currently is, inducing infringement of the ’112 Patent, in violation of 35 U.S.C. § 271(b).

110. For similar reasons, Defendant also infringes the ’112 Patent by supplying or causing to be supplied in or from the United States all or a substantial portion of the components of the Accused Instrumentalities, where such components are uncombined in whole or in part, in such manner as to actively induce the combination of such components outside of the United States in a manner that would infringe the ’112 Patent if such combination occurred within the United States. For example, Defendant supplies or causes to be supplied in or from the United States all or a substantial portion of the hardware (e.g., separate iHeartRadio backend servers) and software (e.g., iHeartRadio Application) components of the Accused Instrumentalities in such a manner as to actively induce the combination of such components (e.g., by instructing users to combine iHeartRadio servers and into an infringing system) outside of the United States

111. Defendant has also infringed, and continues to infringe, claims of the ’112 Patent by offering to commercially distribute, commercially distributing, making, and/or importing the Accused Instrumentalities, which are used in practicing the process, or using the systems, of the ’112 Patent, and constitute a material part of the invention. Defendant knows the components in the Accused Instrumentalities to be especially made or especially

adapted for use in infringement of the ’112 Patent, not a staple article, and not a commodity of commerce suitable for substantial noninfringing use. For example, the ordinary way of using the Accused Instrumentalities infringes the patent claims, and as such, is especially adapted for use in infringement. Accordingly, Defendant has been, and currently is, contributorily infringing the ’112 Patent, in violation of 35 U.S.C. § 271(c).

112. Defendant also indirectly infringes the ’112 Patent by supplying or causing to be supplied in or from the United States components of the Accused Instrumentalities that are especially made or especially adapted for use in infringing the ’112 Patent and are not a staple article or commodity of commerce suitable for substantial non-infringing use, and where such components are uncombined in whole or in part, knowing that such components are so made or adapted and intending that such components are combined outside of the United States in a manner that would infringe the ’112 Patent if such combination occurred within the United States. Because the Accused Instrumentalities are designed to operate as the claimed system and apparatus, the Accused Instrumentalities have no substantial non-infringing uses, and any other uses would be unusual, far-fetched, illusory, impractical, occasional, aberrant, or experimental. For example, Defendant supplies or causes to be supplied in or from the United States all or a substantial portion of the hardware (e.g., separate iHeartRadio servers) and software (e.g., iHeartRadio Application) components that are especially made or especially adapted for use in the Accused Instrumentalities, where such hardware and software components are not staple articles or commodities of commerce suitable for substantial noninfringing use, knowing that such components are so made or adapted and intending that such components are combined outside of the United States, as evidenced by Defendant’s own actions or

instructions to users in, e.g., combining multiple iHeartMedia servers into infringing systems, and enabling and configuring the infringing functionalities of the Accused Instrumentalities.

113. As a result of Defendant's infringement of the '112 Patent, Plaintiff Data Scape is entitled to monetary damages in an amount adequate to compensate for Defendant's infringement, but in no event less than a reasonable royalty for the use made of the invention by Defendant, together with interest and costs as fixed by the Court.

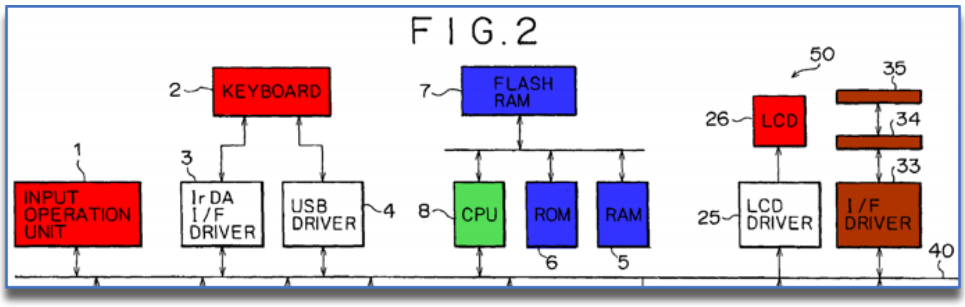
COUNT IV

INFRINGEMENT OF U.S. PATENT NO. 9,712,614

114. Data Scape is the owner by assignment of United States Patent No. 9,712,614 ("the '614 Patent") entitled "Communication System And Its Method and Communication Apparatus And Its Method." The '614 Patent was duly and legally issued by the United States Patent and Trademark Office on July 18, 2017. A true and correct copy of the '614 Patent is included as Exhibit D.

115. In their most basic form, and ignoring many claim limitations, the claims of the '614 Patent are directed to a data synchronization apparatus configured to recognize an identifier of a portable device and a list of digital musical content stored therein, and selectively transfer to the portable device only musical content found in the communication apparatus and not in the portable device and assure the content is played back as a collection. The claims are not directed to abstract ideas. The claims provide technical solutions to technical problems, and, thus, are patent-eligible.

116. As the '614 Patent states, the inventor, Akihiro Morohashi, working at Sony Corporation, aimed to solve the problems skilled artisans in 1999 faced trying to selectively transfer data between two electronic apparatuses. *E.g.*, '614 Patent, Col 2:16-54. For example, many used optical disks to accomplish this process, but that was "cumbersome" and did not enable easy or random selection of files to transfer. *Id.* at 25-37. And when others burned digital files into hard disk drives or semiconductor memory, those systems still required a large amount of time to selectively transfer certain digital data between electronic apparatuses. *Id*. And in any case, there was no reasonable way to selectively synchronize select digital content data between the apparatuses. *Id.* These problems were specific to the technological process of selective digital-data transfer between electronic apparatuses. *Id.* at 1:42-2:37. And with over 28 columns of text and 13 figures, including Figure 2 below, the inventor taught various technical solutions involving an unconventional server with a controller configured with circuitry to compare certain digital management information:



117. Enabled by these teachings, the patent recites in its claims various technical solutions to the existing technological problems and shortcomings. For example, various claims require the then-unconventional system of electronic components configured to use a digital "identifier" to compare, edit and selectively transfer separate lists of digital musical content data between two apparatuses. See, e.g., '614 Patent, Claim 1 ("[a] communication apparatus comprising … [a] a memory configured to store musical content

data and a plurality of lists associated with the musical content data; [b] a data interface configured to interface with an external reproduction apparatus; [c] circuitry configured to [i] control playback of musical content data based on a program list so that the musical content data referenced in the program list is played back as collection, the program list being associated with a predetermined identified; . . . [ii] accept edits to the program list; [iii] determine whether an identifier received by the circuitry via the data interface is the predetermined identifier; [iv] control transfer of the musical content data to the predetermined external reproduction apparatus . . . based on the program list; [v] compare the program list with a second list of musical content data stored in the predetermined external reproduction apparatus; [vi] identify a piece of musical content data common to the program list and the second list based on the result of the comparison; and [vi] control transfer to the predetermined external reproduction apparatus of the musical content data . . . such that transfer of the identified piece of musical content data common to the program list and the second list is omitted").

118. As such, the claims of the '614 patent generally relate, in their most basic form, and ignoring many claim limitations, to the concept of data synchronization as understood by a person of ordinary skill in the art. *See, e.g.*, https://www.techopedia.com/definition/1006/data-synchronization ("Data synchronization is the process of maintaining the consistency and uniformity of data instances across all consuming applications and storing devices. It ensures that the same copy or version of data is used in all devices - from source to destination."); https://www.pcmag.com/encyclopedia/term/40854/data-synchronization ("Keeping data in two or more electronic devices up-to-date so that each repository contains the identical

information. Data in handheld devices and laptops often require synchronization with the data in a desktop machine or server."); https://en.wikipedia.org/wiki/Data_synchronization ("Data synchronization is the process of establishing consistency among data from a source to a target data storage and vice versa and the continuous harmonization of the data over time.").

119. The '614 patent and its file history make clear that each included independent-claim limitations were not in the prior art, let alone well-understood, routine, and conventional. This includes the communication apparatus comprising (1) a memory configured to store musical content data and a plurality of lists associated with the musical content data; (2) a data interface configured to interface with an external reproduction apparatus; (3) circuitry configured to [i] control playback of musical content data based on a program list so that the musical content data referenced in the program list is played back as collection, the program list being associated with a predetermined identified; [ii] accept edits to the program list; [iii] determine whether an identifier received by the circuitry via the data interface is the predetermined identifier; [iv] control transfer of the musical content data to the predetermined external reproduction apparatus based on the program list; [v] compare the program list with a second list of musical content data stored in the predetermined external reproduction apparatus; [vi] identify a piece of musical content data common to the program list and the second list based on the result of the comparison; and [vi] control transfer to the predetermined external reproduction apparatus of the musical content data such that transfer of the identified piece of musical content data common to the program list and the second list is omitted. And the dependent claims also

include limitations that were not in the prior art, let alone well-understood, routine, and conventional. *See, e.g.*, limitations of 2, 3, 4, 5, 6, 7, 8. 9, 10, and 11 of the '614 patent.

120. For example, claim 1 of the '614 patent recites:

> 1. A communication apparatus comprising:
>
> a memory configured to store musical content data and a plurality of program lists associated with the musical content data; a
>
> data interface configured to interface with an external reproduction apparatus; and
>
> circuitry configured to
>
> **control playback of musical content data based on a program list so that the musical content data referenced in the program list is played back as a collection, the program list being associated with a predetermined identifier uniquely identifying a predetermined external reproduction apparatus among a plurality of external reproduction apparatuses,**
>
> control presentation of the program list to a user via a user interface,
>
> accept edits to the program list via the user interface,
>
> determine whether an identifier received by the circuitry via the data interface is the predetermined identifier,
>
> **control transfer of the musical content data to the predetermined external reproduction apparatus via the data interface based on the program list when the received identifier is the predetermined**

identifier without receiving information on selection of the musical content data from the predetermined external reproduction apparatus,

compare the program list with a second list of musical content data stored in the predetermined external reproduction apparatus,

identify a piece of musical content data common to the program list and the second list based on the result of the comparison, and

control transfer to the predetermined external reproduction apparatus of the musical content data that is in the program list and is not in the second list of musical content data based on the result of the comparison such that transfer of the identified piece of musical content data common to the program list and the second list is omitted.

121. The limitations highlighted above, in combination, are not found in the claims of the '675 patent or other asserted patents.

122. Further, the file history confirms that these limitations were inventive over prior art and not well-understood, routine, and conventional. *See* '614 File History, Mar. 14, 2017, Notice of Allowance ("None of the prior art of record further teaches the combined features of …").

123. Likewise, the specification teaches that controlling the playback and transfer of musical content data as claimed was inventive over the prior art, and not well-understood, routine, and conventional. *E.g.*, '675 patent at 5:14-6:9, 7:9-8:32, 11:11-12:4, 13:59-15:6, 19:57-22:7, 22:8-67.[4]

[4] The '675 patent is related to (and share substantially the same specification as) the '112, '614, and '614 patents. Accordingly, citations to the '675 patent is applicable to the '112, '614, and '614 patents, and vice versa.

124. Claim 1 of the ‘614 patent does not claim a result, but instead specific technology using specific and non-conventional processes and machines, including:

> 1. A **communication apparatus** comprising:
>
> a **memory configured** to store musical content data and a plurality of program lists associated with the musical content data; a
>
> **data interface configured** to interface with an external reproduction apparatus; and
>
> **circuitry configured** to
>
> control playback of musical content data based on a program list so that the musical content data referenced in the program list is played back as a collection, the program list being associated with a predetermined identifier uniquely identifying a predetermined **external reproduction apparatus** among a plurality of **external reproduction apparatuses**,
>
> control presentation of the program list to a user via a user interface,
>
> accept edits to the program list via the user interface,
>
> determine whether an identifier received by the circuitry via the data interface is the predetermined identifier,
>
> control transfer of the musical content data to the predetermined **external reproduction apparatus** via the data interface based on the program list when the received identifier is the predetermined identifier without receiving information on selection of the musical content data from the predetermined **external reproduction apparatus**,

compare the program list with a second list of musical content data stored in the predetermined **external reproduction apparatus**,

identify a piece of musical content data common to the program list and the second list based on the result of the comparison, and

control transfer to the predetermined **external reproduction apparatus** of the musical content data that is in the program list and is not in the second list of musical content data based on the result of the comparison such that transfer of the identified piece of musical content data common to the program list and the second list is omitted.

125. Claim 1 is not representative of all claims of the '614 patent. For example, dependent claims contain limitations not found in independent claim 1. For example, claim 3 recites "the circuitry is further configured to control access to data via the Internet using a unique key assigned to the user." As another example, claim 4 recites "the circuitry is further configured to edit the program list without regard to whether the communication apparatus is connected to the predetermined external reproduction apparatus." As another example, claim 5 recites "the circuitry is further configured to judge whether or not the predetermined external reproduction apparatus has been connected to the communication apparatus; and start the transfer of the musical content data in case that it is judged that the predetermined external reproduction apparatus has been connected to the communication apparatus." As another example, claim 11 recites "the circuitry is further configured to prevent transfer of the musical content data to the predetermined external reproduction apparatus via the data interface based on the program list when the received identifier is

not the predetermined identifier." These limitations and others are inventive over the prior art and not well-understood, routine, and conventional.

126. In a patent filed by Western Digital in 2004, it admitted there was still a technical "**need for a system that allows quick and easy communication …**that allows collaborative use of remote devices by multiple users…" U.S. Patent No. 7,546,353 (emphasis added). That was because, even in 2004, it was "not uncommon [] to have separate computing systems [which] requires that the common data all be kept current, i.e., with the latest version of each common file, as it is typical to update and edit files. **This in itself can be an enormously time consuming and tedious**…" *Id*. (emphasis added). And Western Digital even cited Data Scape's patent, which it acknowledged was in the same technical field.

127. Similarly, in a 2005-filed patent application that also cites Data Scape's earlier patents *in the same technical field*, Microsoft made clear that the selective transfer of digital data between two devices was a technical problem one year later. U.S. Patent Application No. 20060288036 (data transfer involved "a number of processes, such as enumeration of content on each device … and efficient metadata retrieval based on user queries. Thus, **user experience could also be enhanced by providing optimization for the transfer enumeration protocol between the two devices**.") (emphasis added) (available at https://patents.google.com/patent/US20060288036?oq=20060288036).

128. And in 2006, this time in a patent application filed by Apple, Steve Jobs and five Apple computer scientists represented to the USPTO that there was still "**a continuing need for improved techniques to transfer** and synchronize media data on host computers and/or media players." U.S. Patent Application 20080086494 (emphasis added). And

Apple, too, cited Data Scape's asserted patents, which, again, were acknowledged to be *in the same technical field*. *Id* (available at https://patents.google.com/patent/US20080086494A1/en?oq=20080086494).

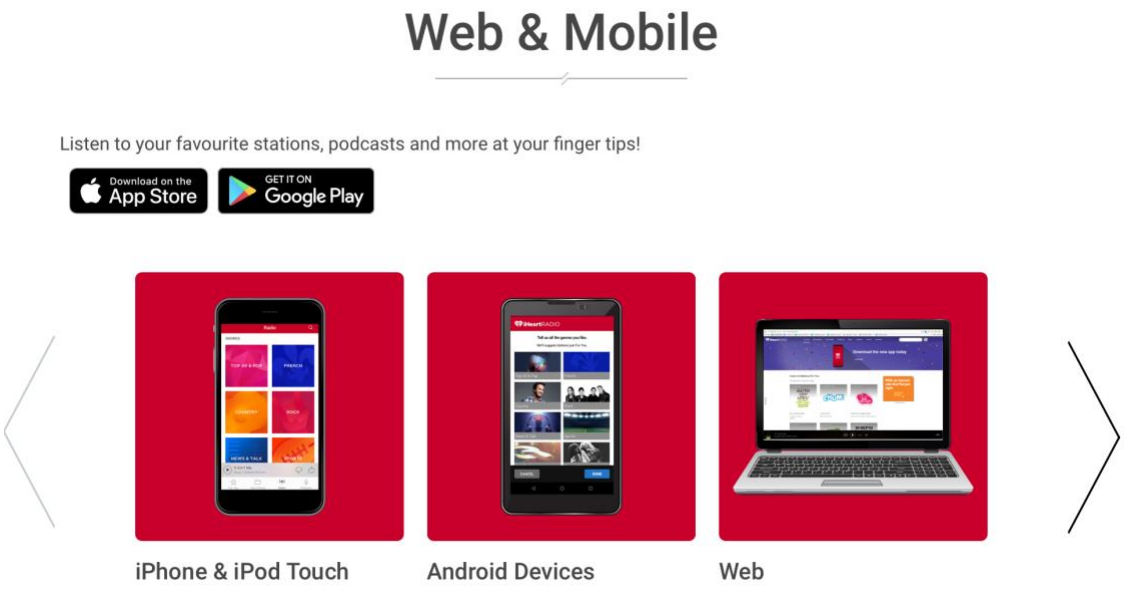
129. The statements in these later-filed patent applications confirm that Data Scape's patent at issue here are directed to technical solutions to technical problems, and improves computer functionalities. The statements in these later-filed patent applications also confirm that the limitations recited in Data Scape's patent at issue here are not well-understood, routine, or conventional, and that the claims are not directed to other ideas "identified by the courts as abstract ideas," that recently have been synthesized into three groups: "(a) mathematical concepts"; "(b) methods of organizing human activity"; or "(c) mental processes." 84 Fed. Reg. 50 (Jan. 7, 2019) (2019 PTO §101 Guidance, citing and surveying post-*Alice* decisions).

130. Defendant has offered for sale, sold and/or imported into the United States products and services that infringe the '614 patent, and continues to do so. By way of illustrative example, these infringing products and services include, without limitation, Defendant's products and services, *e.g.*, iHeartRadio and all versions and variations thereof since the issuance of the '614 Patent ("Accused Instrumentalities").

131. Defendant has directly infringed and continues to infringe the '614 Patent, for example, by making, selling, offering for sale, and/or importing the Accused Instrumentalities, and through its own use and testing of the Accused Instrumentalities. Defendant uses the Accused Instrumentalities for its own internal non-testing business purposes, while testing the Accused Instrumentalities, and while providing technical support and repair services for the Accused Instrumentalities to its customers.

132. For example, the Accused Instrumentalities infringe Claim 1 (as well as other claims) of the '614 Patent. One non-limiting example of the Accused Instrumentalities' infringement is presented below:

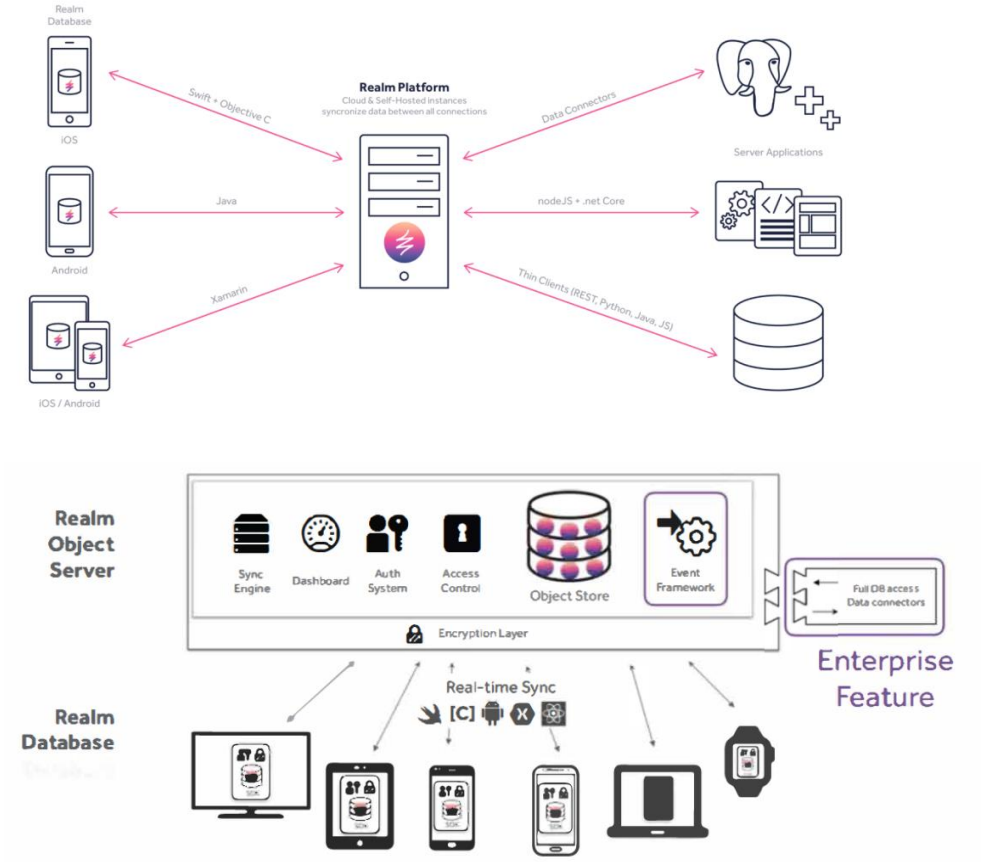
133. The Accused Instrumentalities includes "[a] communication apparatus." For example, the Accused Instrumentalities communicate music files and playlists stored on one device (e.g., web servers running iHeartRadio backend application) to another device (e.g., a user's mobile device or tablet with the iHeartRadio app installed). *See* https://www.iheartmedia.com/iheartmedia/iheartradio (e.g., "iHeartRadio is available online, on mobile phones and tablets, in cars and on connected devices including Xbox, PlayStation and smart TVs.").



See http://www.iheartradio.ca/apps-en

As another example, the Accused Instrumentalities includes Realm Object Server, which is configured to communicate with iOS or Android devices. *See* https://tech.iheart.com/performance-comparison-of-realm-and-sqlite-on-ios-6df1d51e6a07 ("We've been using Realm Mobile Database for a while to achieve offline

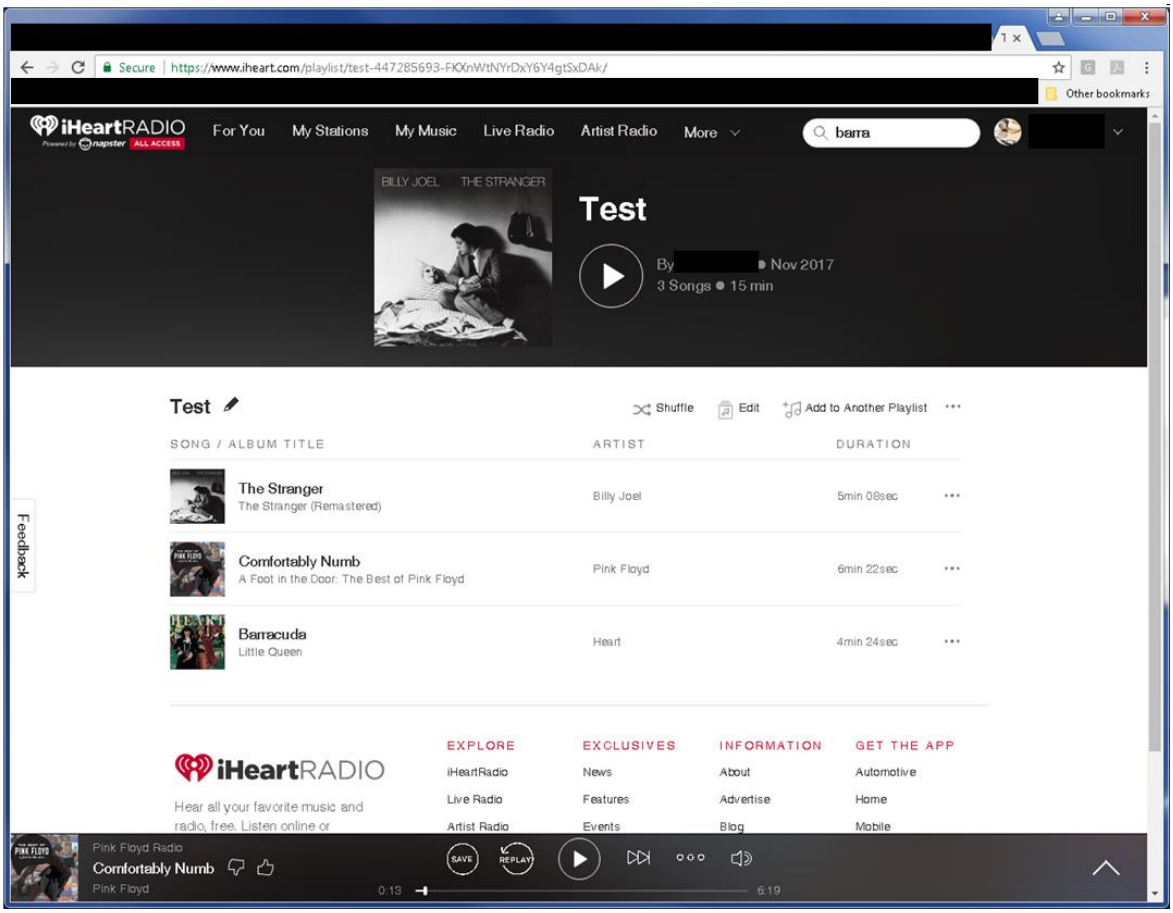
mode, which is a core feature of our brand new All Access subscription."). *See* https://docs.realm.io/server/what-is-realm-platform.



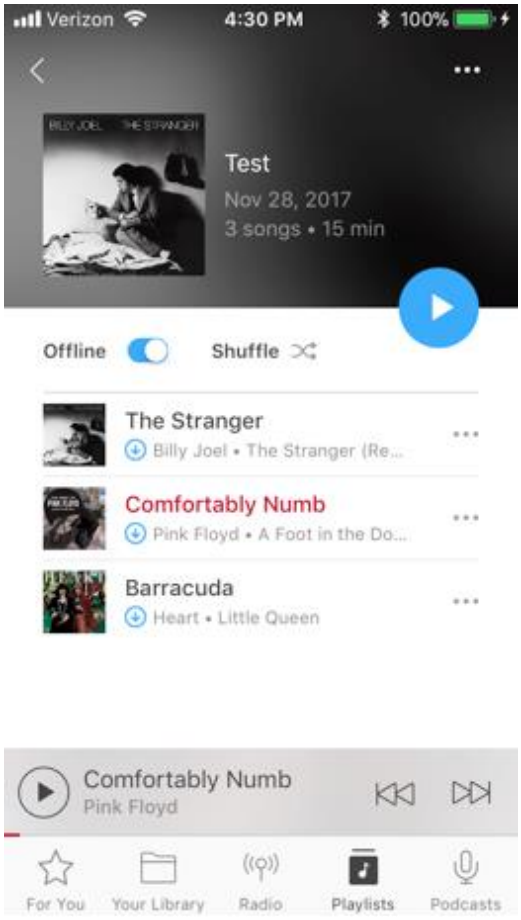
See Build Better Apps, Faster with Real. An Overview of the Real Platform at page 9. In particular, the Accused Instrumentalities include the Realm platform, which "automatically syncs data across devices. *See* Build Better Apps, Faster with Real. An Overview of the Real Platform at page 15. That is "if a user inputs or changes data in an iPhone app, that data is synced in realtime with your entire install base of apps, whether they be iOS or Android. Data is also synced with the Realm Object Server on the back-end, which runs your business logic and processes. *See* Build Better Apps, Faster with Real. An Overview of the Real Platform at page 15. Furthermore, the Realm platform is "designed to serve

10,000 concurrent connections from a single CPU server with 16GBs of RAM." *See* https://docs.realm.io/server/manage/hardware-requirements-and-scaling#dependencies.

134. The Accused Instrumentalities include a communication apparatus comprising "a memory configured to store musical content data and a plurality of program lists associated with the musical content data." For example, the mobile device or tablet with the iHeartRadio App installed contains memory that will store musical files as individual files, station, albums or as playlists:



See iHeartRadio Application.



See iHeartRadio Application.

Tap **Your Library**  tab to find playlists you've created or followed.

Tap the **Playlists**  tab and scroll through our directory of curated playlists to find something perfect to listen to. Android users will find Playlists within the side navigation.

- Browse by mood or activity in *Mood & Activities*
- Browse by decade in *Decades*
- Browse by genre in *Genres*

Know exactly what you're looking for? Tap  to search for the name of the playlist or by mood/activity.

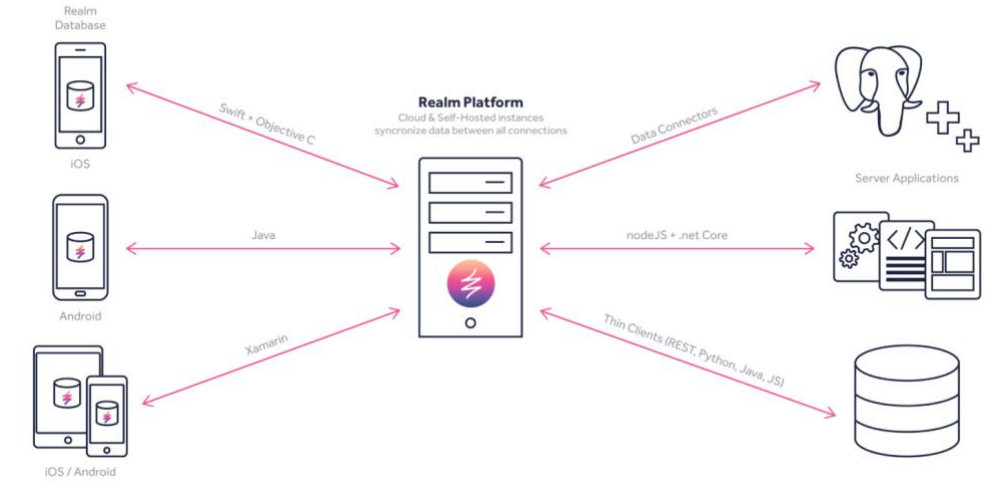
FOLLOW A PLAYLIST

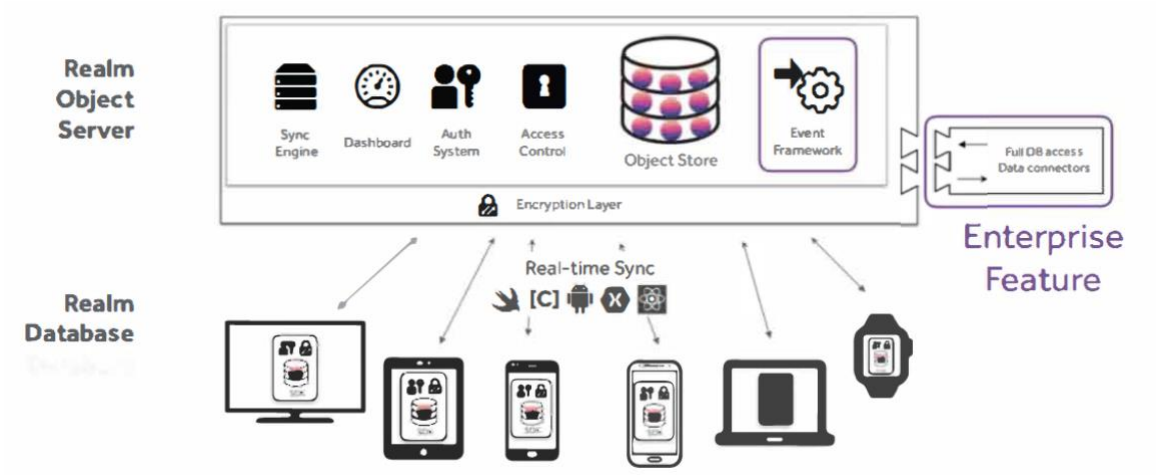
Tap 

to save a playlist to **Your Library** on iOS or My Music on Android and Web.

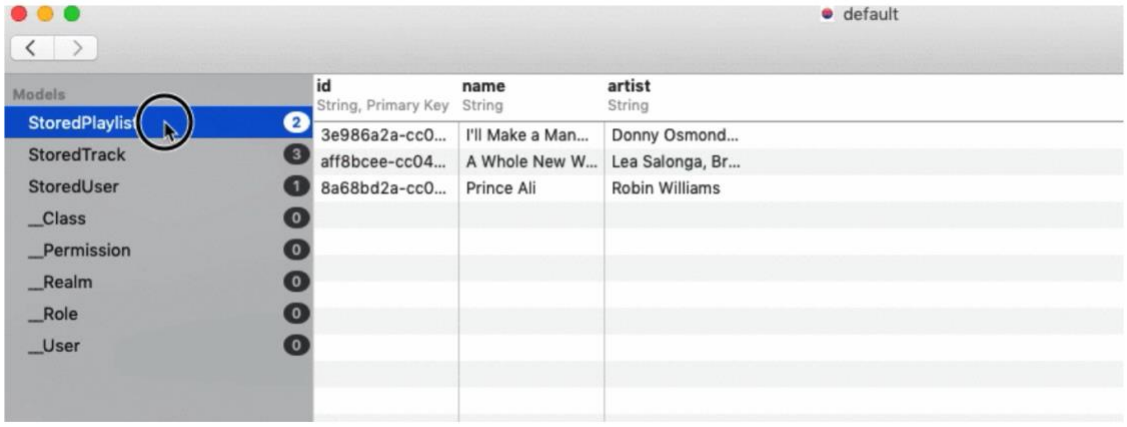
See https://help.iheart.com/hc/en-us/articles/115000243092-Playlists.

As another example, the Accused Instrumentalities include Realm Object Server, which includes an object store. *See* https://tech.iheart.com/performance-comparison-of-realm-and-sqlite-on-ios-6df1d51e6a07 ("We've been using Realm Mobile Database for a while to achieve offline mode, which is a core feature of our brand new All Access subscription."). *See* https://docs.realm.io/server/what-is-realm-platform





See Build Better Apps, Faster with Real. An Overview of the Real Platform at page 9. The Object Store "is a common set of APIs that enables cross-platform compatible data storage." *See* Build Better Apps, Faster with Real. An Overview of the Real Platform at page 9. More specifically, in Realm Object Server "[A]ll data represented on the client devices is mirrored on the server in the exact same live object format." *See* Build Better Apps, Faster with Real. An Overview of the Real Platform at page 9. As another example, the Accused Instrumentalities store user's playlists and tracks.

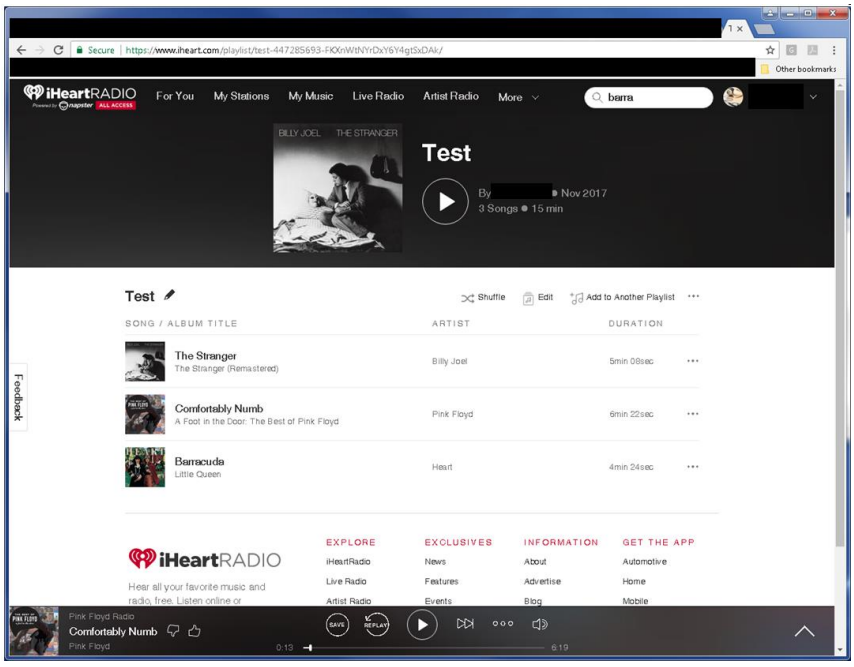


Adding our objects was successful

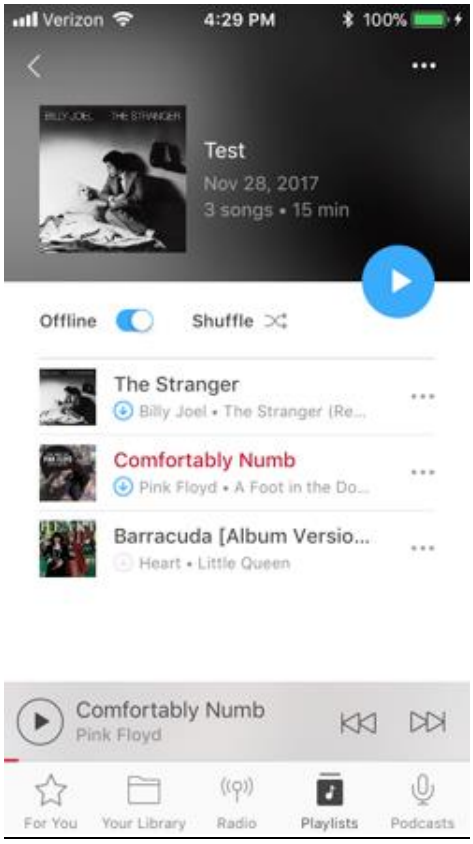
See https://tech.iheart.com/using-realm-with-swift-and-codable-10a825042e63.

135. The Accused Instrumentalities include a communication apparatus further comprising "a data interface configured to interface with an external reproduction apparatus." For example, the Accused Instrumentalities include Realm Object Server. *See* https://tech.iheart.com/performance-comparison-of-realm-and-sqlite-on-ios-6df1d51e6a07 ("We've been using Realm Mobile Database for a while to achieve offline mode, which is a core feature of our brand new All Access subscription."). As such, when Realm client synchronizes, "it will establish a network connection with the server in the background." *See* https://docs.realm.io/sync/using-synced-realms/syncing-data#monitoring-sync-progress. Moreover, when the network connection is available, clients reconnect to synchronize changes. *See* https://realm.io/solutions/offline-first/. (e.g., "The underlying Realm synchronization services run in the background and even restarts and restores synchronization in the event of a lost network connection." "When an app reconnects to the network, changes saved locally are synced back to the server. Conflicts that arise are handled automatically with predictable rules for consistent user experiences.").

136. The Accused Instrumentalities further include a communication apparatus comprising circuitry configured to "control playback of musical content data based on a program lists so that the musical content data referenced in the program list is played back as a collection, the program list being associated with a predetermined identifier uniquely identifying a predetermined external reproduction apparatus among a plurality of reproduction apparatuses. For example, the iHeartRadio App allows musical files to be played as a "Playlist" consisting of a collection of musical files. *See* https://help.iheart.com/hc/en-us/articles/115000242952-What-s-My-Playlist- (e.g., "My Playlist is a feature found within the Your Library tab on iOS and My Music on Android. We've done our best to auto-populate *My Playlist* with music we think you'll like. To add more songs to *My Playlist*, simply tap the *Save* button on the player and choose Save Song.").



See iHeartRadio Application.



See iHeartRadio Application.

Moreover, the Accused instrumentalities use the user's email address or Facebook/Google credentials to access their iHeartRadio account, which is associated with the user's playlist.

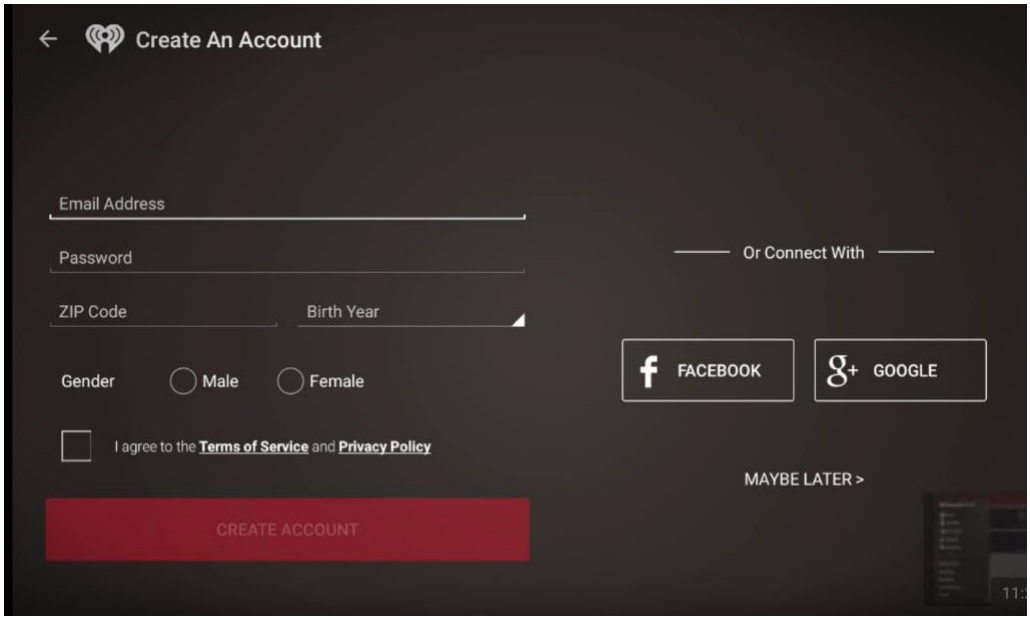
We're using Facebook to bring you the best possible listening experience!

- **Easy Access** - No new username or password to remember
- **Music Discovery** - Create Artist Radio Stations, see what your friends are listening to and discover new music much more easily
- **Share** - Discover a song or station you think a friend might enjoy? Share it with your friends
- **Auto-sync** - Your saved stations automatically sync between iHeartRadio.com and your iPhone, Android, or iPad

iHeartRadio is committed to giving users controls to manage their privacy settings:

- **Control** - You decide whether or not to make your music listening visible to friends, and what and when you post to Facebook
- **Privacy** - iHeartRadio will not use your Facebook information for any reason other than improving your experience

See https://help.iheart.com/hc/en-us/articles/228919147-Logging-in-with-Facebook

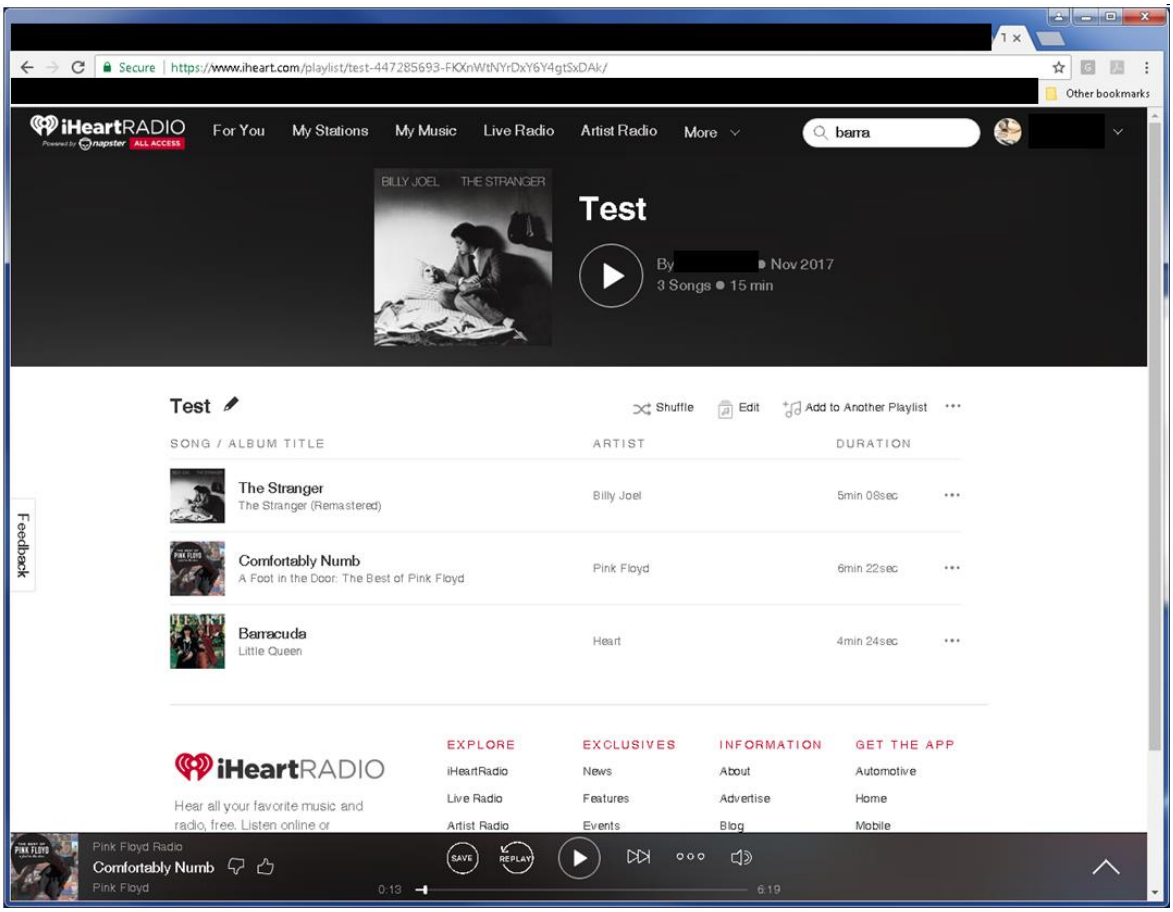


See https://www.iheart.com/ and iHeartRadio Application.

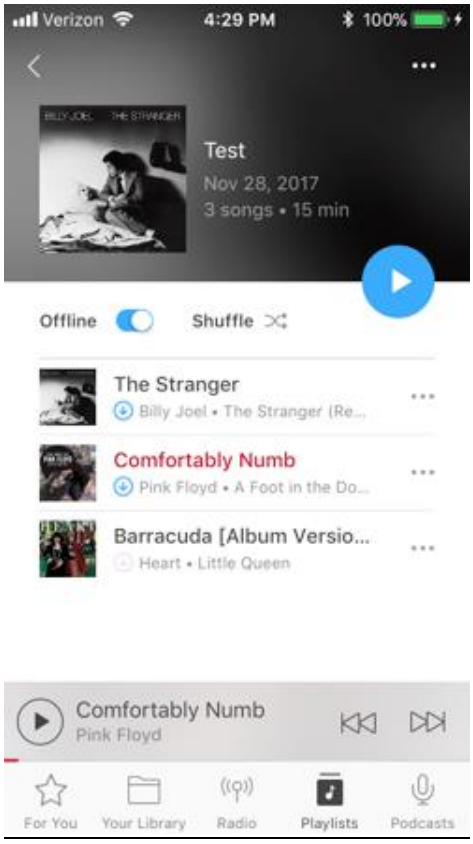
Furthermore, the Accused instrumentalities allow users to access their iHeartRadio "account on up to 6 compatible devices." *See* https://help.iheart.com/hc/en-

us/articles/235650288-Can-I-use-iHeartRadio-All-Access-on-multiple-devices-. The Accused instrumentalities further specify that "you can only listen using one device at a time." *See* https://help.iheart.com/hc/en-us/articles/235650288-Can-I-use-iHeartRadio-All-Access-on-multiple-devices-.

137. The Accused Instrumentalities further include a communication apparatus comprising circuitry configured to "control presentation of the program list to a user via user interface." For example, the iHeartRadio includes a graphic user interface that will show the playlists that are available.



See iHeartRadio Application.



See iHeartRadio Application.

As another example, the Accused Instrumentalities presentation of users' playlists by presenting music that a user may like. *See* https://help.iheart.com/hc/en-us/articles/115000242952-What-s-My-Playlist- (e.g., "My Playlist is a feature found within the Your Library tab on iOS and My Music on Android. We've done our best to auto-populate *My Playlist* with music we think you'll like. To add more songs to *My Playlist*, simply tap the *Save* button on the player and choose Save Song.").

138. The Accused Instrumentalities further include a communication apparatus comprising circuitry configured to accept edits to the program list via the user interface. For example, the iHeartRadio App allows items to be added to a playlist or deleted from a playlist by using the user interface on iOS, Android or Web platforms.

iOS

1. Tap **Your Library**
2. Choose the playlist you wish to edit and tap
3. Select Edit.
   - Tap to delete a song.
   - Use to drag song to desired position.
4. Tap Done on the top of the screen once you've made the changes to the playlist.

Android

1. Tap **Your Library**
2. Choose the playlist you wish to edit and tap the three vertical dots next to the playlist
3. Select Edit
   - Use to drag song to desired position.
4. Tap Done on the top of the screen once you've made the changes to the playlist.

Web (iHeart.com)

1. Select My Music from the menu at the top of your browser page on iHeart.com
2. Choose the playlist you wish to edit and tap the edit button on the top of screen
3. Delete a song off the playlist by tapping the button on the left.
4. Drag the song up or down by using the button on the right.
5. Tap Done on the bottom of the screen once you're happy with the changes you've made to your playlist. Or, you can hit Cancel to reverse any changes you've just made.

See https://help.iheart.com/hc/en-us/articles/115000243052-How-do-I-edit-playlists-

139. The Accused Instrumentalities further include circuitry configured to "determine whether an identifier received by the circuitry via the data interface is the predetermined identifier." For example, the iHeartRadio App can determine whether a specific user account associated with a device is connected to iHeartRadio's backend server. As such, the Accused instrumentalities use the user's email address or Facebook/Google credentials to access their iHeartRadio account, which is associated with the user's playlist.

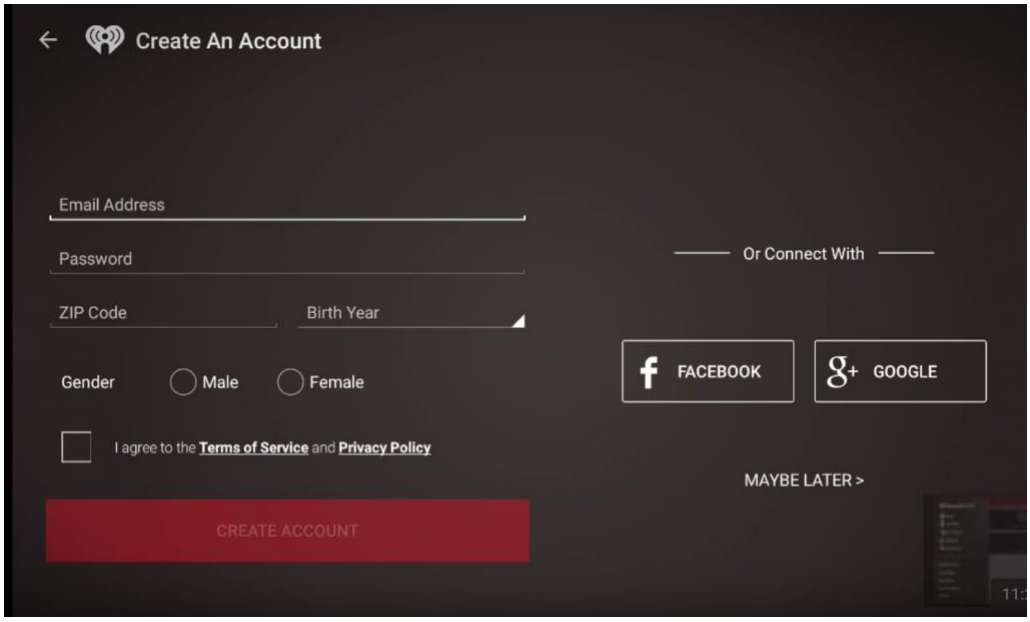
We're using Facebook to bring you the best possible listening experience!

- **Easy Access** - No new username or password to remember
- **Music Discovery** - Create Artist Radio Stations, see what your friends are listening to and discover new music much more easily
- **Share** - Discover a song or station you think a friend might enjoy? Share it with your friends
- **Auto-sync** - Your saved stations automatically sync between iHeartRadio.com and your iPhone, Android, or iPad

iHeartRadio is committed to giving users controls to manage their privacy settings:

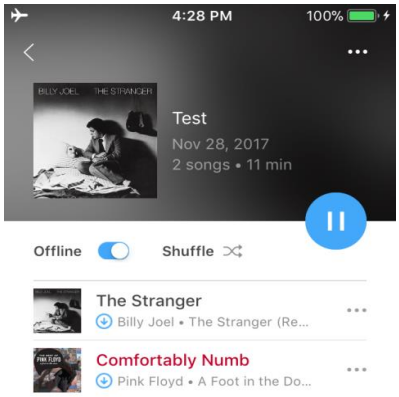
- **Control** - You decide whether or not to make your music listening visible to friends, and what and when you post to Facebook
- **Privacy** - iHeartRadio will not use your Facebook information for any reason other than improving your experience

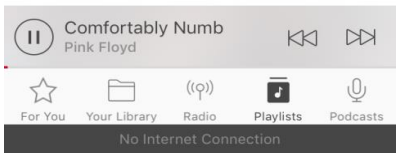
See https://help.iheart.com/hc/en-us/articles/228919147-Logging-in-with-Facebook



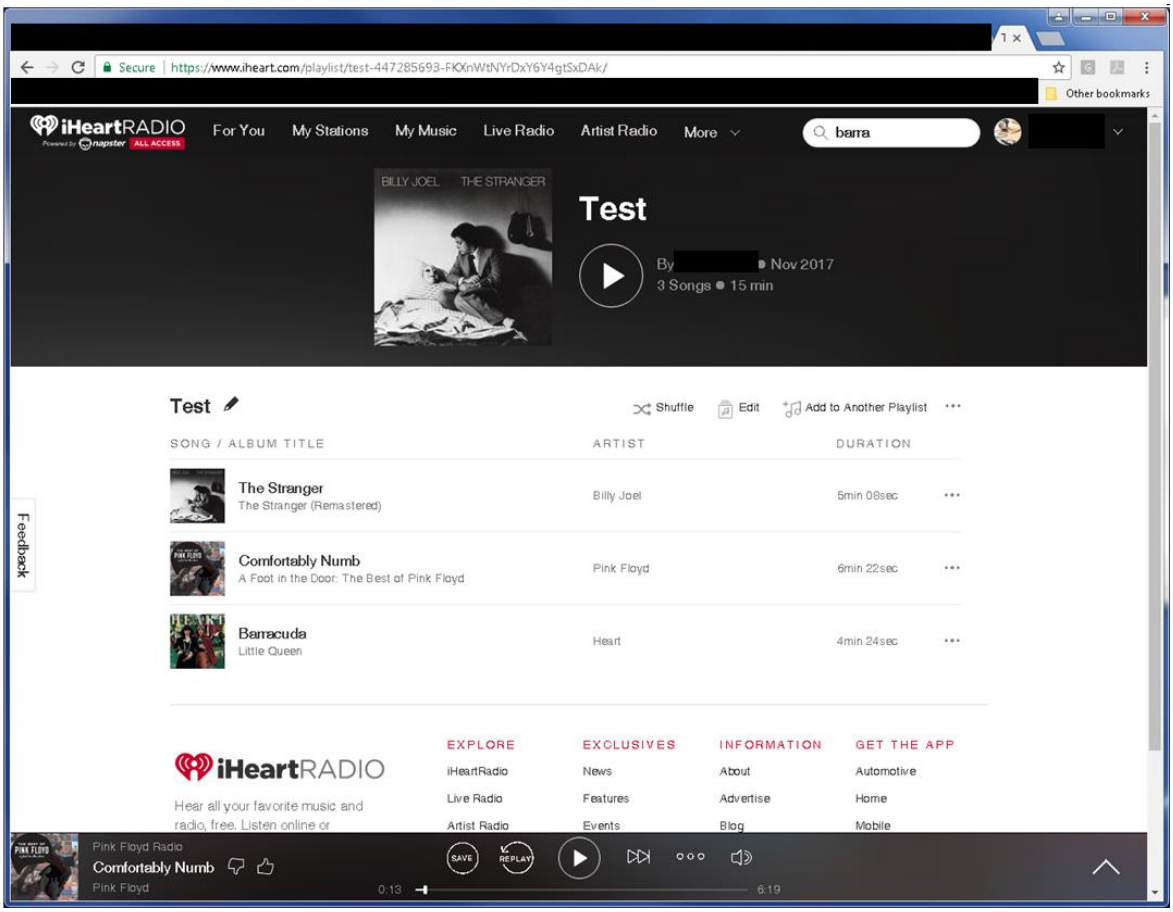
See https://www.iheart.com/ and iHeartRadio Application. Moreover, the Accused instrumentalities allow users to access their iHeartRadio "account on up to 6 compatible devices." *See* https://help.iheart.com/hc/en-us/articles/235650288-Can-I-use-iHeartRadio-All-Access-on-multiple-devices-. The Accused instrumentalities further specify that "you can only listen using one device at a time." *See* https://help.iheart.com/hc/en-us/articles/235650288-Can-I-use-iHeartRadio-All-Access-on-multiple-devices-.

140. The Accused Instrumentalities further include circuitry configured to "control transfer of the musical content data to the predetermined external reproduction apparatus via the data interface based on the program list when the received identifier is the predetermined identifier without receiving information on selection of the musical content data from the predetermined external reproduction apparatus." For instance, if a playlist is edited in iHeartRadio web application to add a new song, iHeartRadio web application will transfer the newly added song to mobile devices associated with the user's iHeartRadio account.

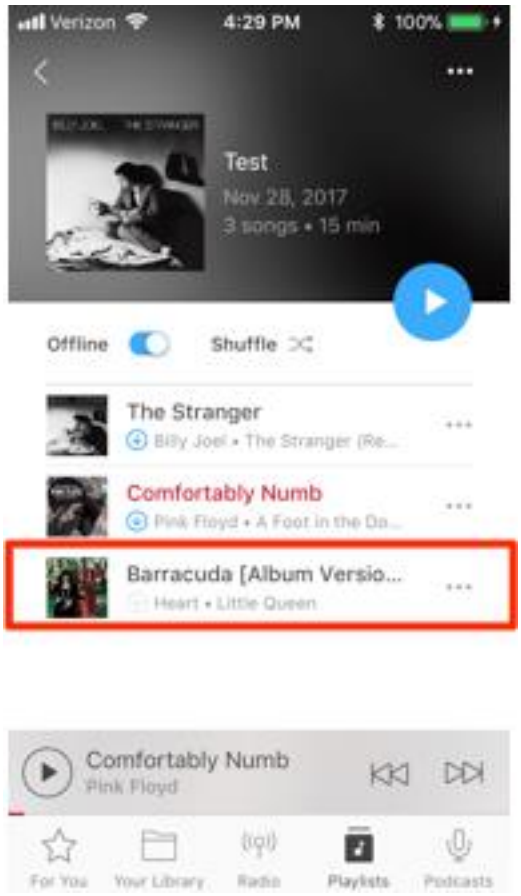




See iHeartRadio Application.

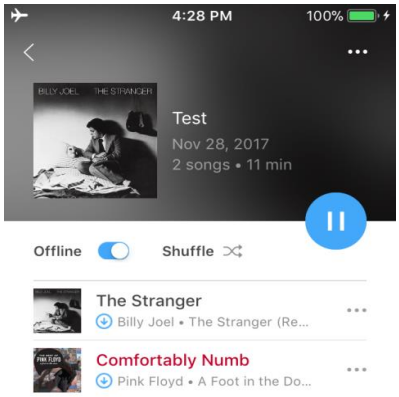


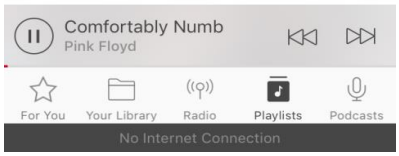
See iHeartRadio Application.



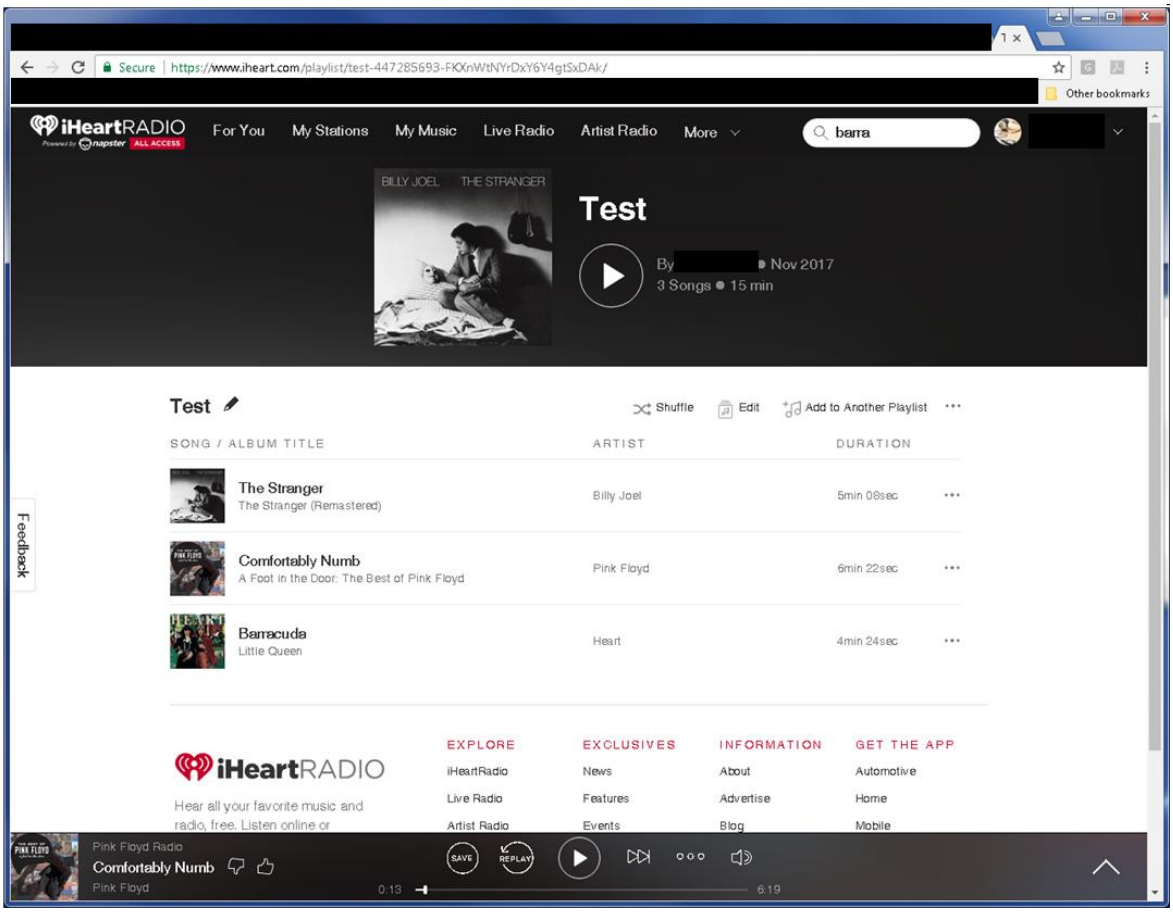
See iHeartRadio Application. (emphasis added).

141. The Accused Instrumentalities further include circuitry configured to "compare the program list with a second list of musical content data stored in the predetermined external reproduction apparatus." For instance, if a playlist is edited in iHeartRadio web application to add a new song, iHeartRadio application running on the mobile device will compare common songs in the web and mobile applications and only synchronize the newly added song.

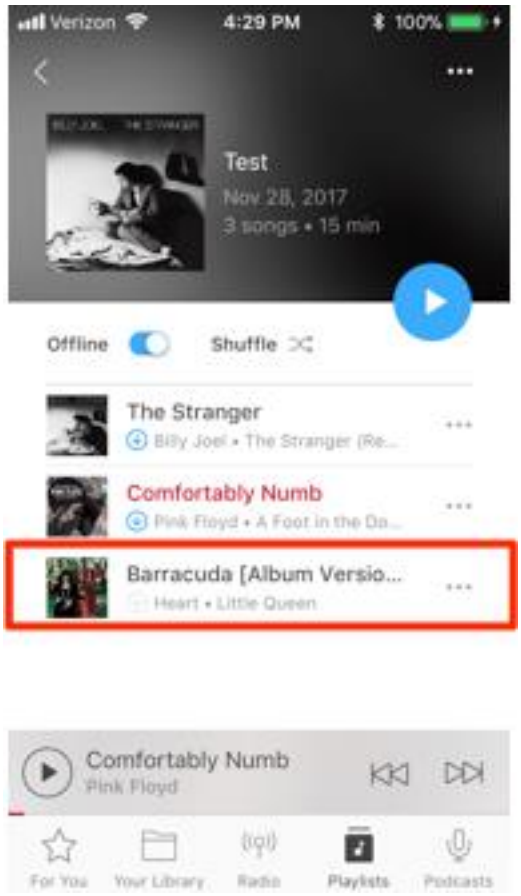




See iHeartRadio Application.

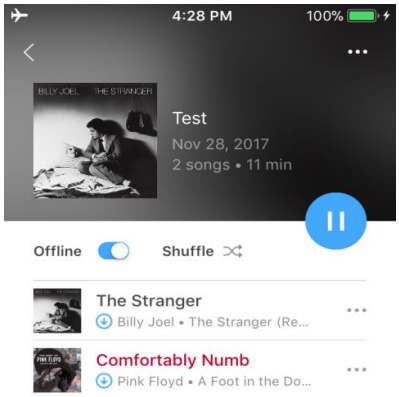


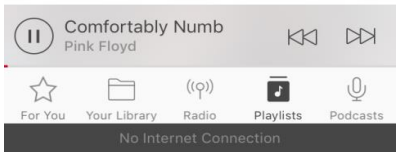
See iHeartRadio Application.



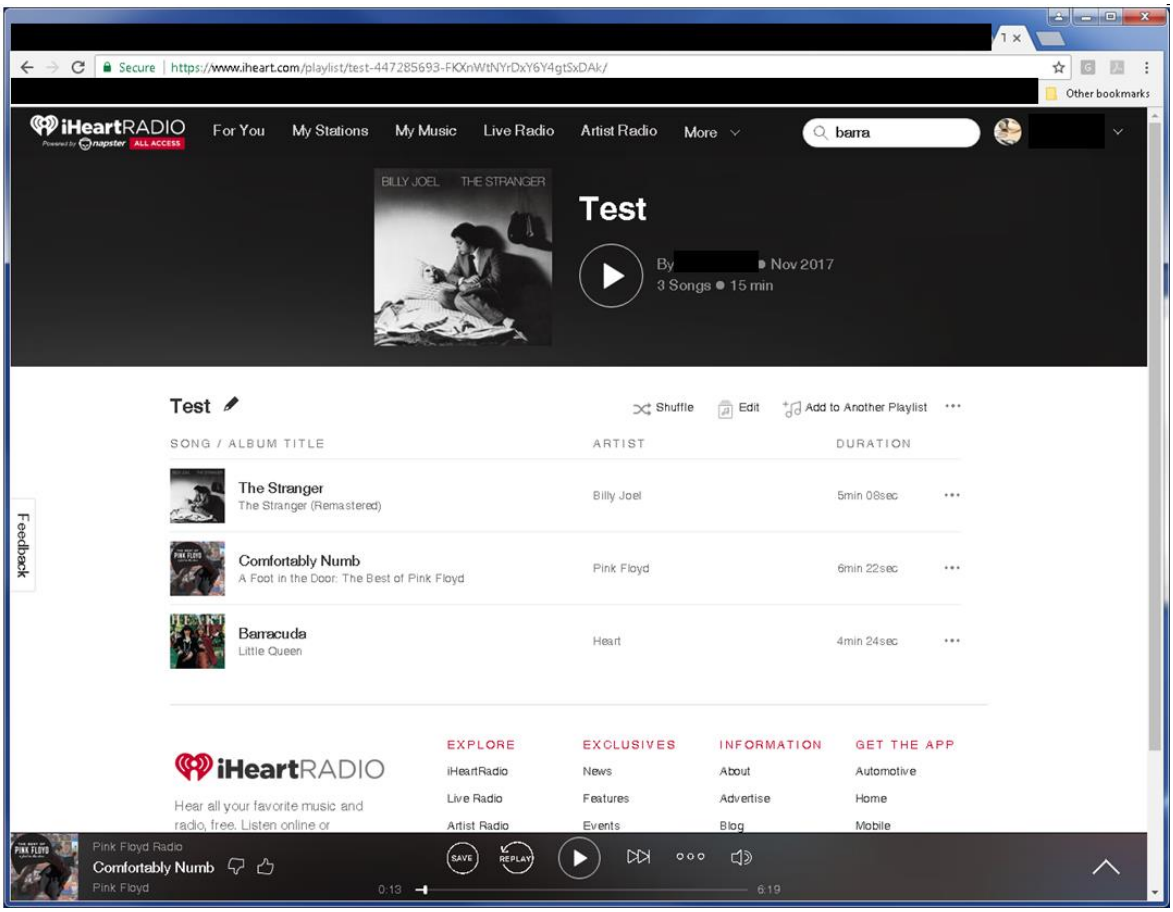
See iHeartRadio Application. (emphasis added).

142. The Accused Instrumentalities further include circuitry configured to "identify a piece of musical content data common to the program list and the second list based on the result of the comparison." For instance, if a playlist is edited in iHeartRadio web application to add a new song, iHeartRadio application running on the mobile device will identify common songs in the web and mobile applications and only synchronize the newly added song.

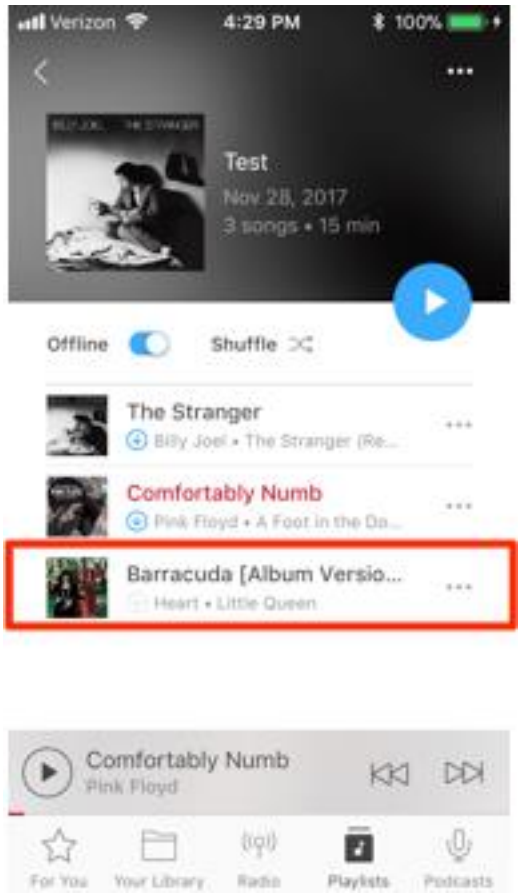




See iHeartRadio Application.



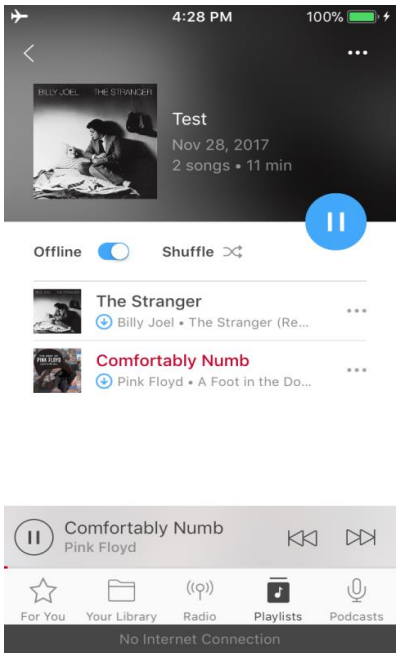
See iHeartRadio Application.



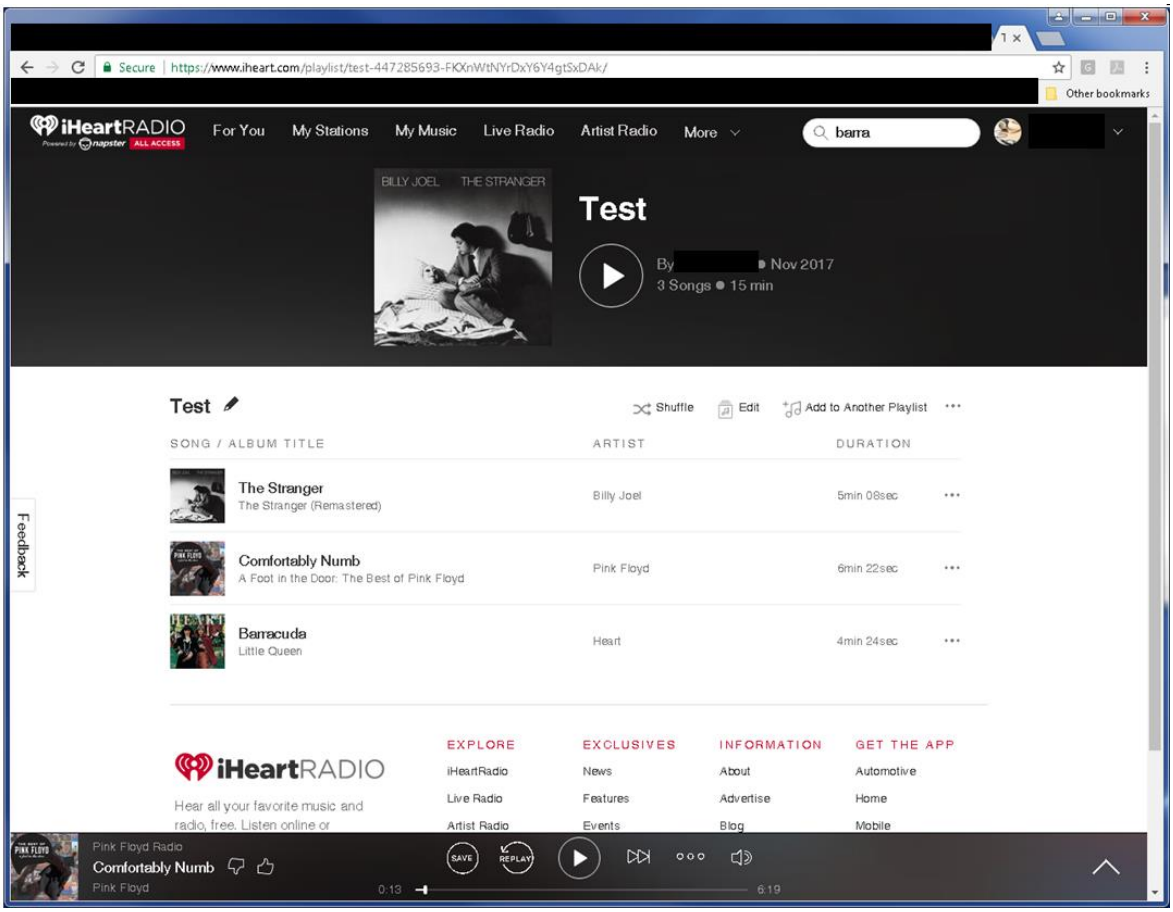
See iHeartRadio Application. (emphasis added).

143. The Accused Instrumentalities further include circuitry configured to "control transfer to the predetermined external reproduction apparatus of the musical content data that is in the program list and is not in the second list of musical content data based on the result of the comparison such that transfer of the identified piece of musical content data common to the program list and the second list is omitted." For instance, the Accused Instrumentalities include Realm Platform, which uses subscriptions to push changes to all subscribing clients. *See* https://docs.realm.io/server/what-is-realm-platform. (e.g., "When data changes occur the server will reevaluate existing subscriptions and push the changes to all subscribing clients."). *See* https://tech.iheart.com/performance-comparison-of-realm-and-sqlite-on-ios-6df1d51e6a07 ("We've been using Realm Mobile

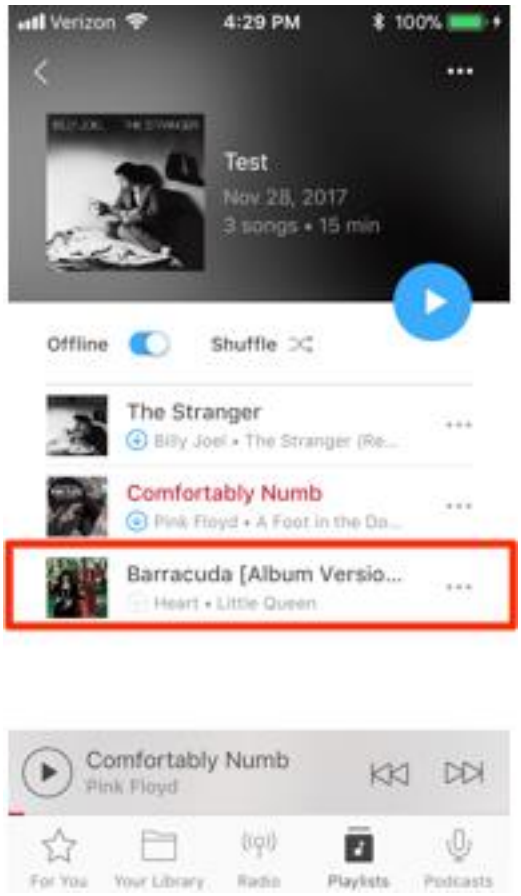
Database for a while to achieve offline mode, which is a core feature of our brand new All Access subscription.”). As another example, when iHeartRadio’s web application makes edits to the user’s playlist while the user’s iOS or Android device is offline, the playlist edits are automatically transmitted to the user’s iOS or Android device.



See iHeartRadio Application.



See iHeartRadio Application.



See iHeartRadio Application. (emphasis added).

144. Defendant has had knowledge of the ’614 Patent and its infringement since at least the filing of this Complaint, or shortly thereafter, including by way of this lawsuit. By the time of trial, Defendant will have known and intended (since receiving such notice) that its continued actions would actively induce and contribute to the infringement of the claims of the ’614 Patent.

145. Defendant’s affirmative acts of making, using, selling, offering for sale, and/or importing the Accused Instrumentalities have induced and continue to induce users of the Accused Instrumentalities to use the Accused Instrumentalities in their normal and customary way to infringe the claims of the ’614 Patent. Use of the Accused

Instrumentalities in their ordinary and customary fashion results in infringement of the claims of the ’614 Patent.

146. For example, Defendant explains to customers the benefits of using the Accused Instrumentalities, such as by touting their advantages of synchronizing settings among multiple devices. Defendant also induces its customers to use the Accused Instrumentalities to infringe other claims of the ’614 Patent. Defendant specifically intended and was aware that the normal and customary use of the Accused Instrumentalities on compatible systems would infringe the ’614 Patent. Defendant performed the acts that constitute induced infringement, and would induce actual infringement, with the knowledge of the ’614 Patent and with the knowledge, or willful blindness to the probability, that the induced acts would constitute infringement. On information and belief, Defendant engaged in such inducement to promote the sales of the Accused Instrumentalities, e.g., through its user manuals, product support, marketing materials, demonstrations, installation support, and training materials to actively induce the users of the accused products to infringe the ’614 Patent. Accordingly, Defendant has induced and continues to induce end users of the accused products to use the accused products in their ordinary and customary way with compatible systems to make and/or use systems infringing the ’614 Patent, knowing that such use of the Accused Instrumentalities with compatible systems will result in infringement of the ’614 Patent. Accordingly, Defendant has been (since at least as of filing of the original complaint), and currently is, inducing infringement of the ’614 Patent, in violation of 35 U.S.C. § 271(b).

147. For similar reasons, Defendant also infringes the ’614 Patent by supplying or causing to be supplied in or from the United States all or a substantial portion of the

components of the Accused Instrumentalities, where such components are uncombined in whole or in part, in such manner as to actively induce the combination of such components outside of the United States in a manner that would infringe the ’614 Patent if such combination occurred within the United States. For example, Defendant supplies or causes to be supplied in or from the United States all or a substantial portion of the hardware (e.g., separate iHeartRadio backend servers) and software (e.g., iHeartRadio Application) components of the Accused Instrumentalities in such a manner as to actively induce the combination of such components (e.g., by instructing users to combine iHeartRadio servers and into an infringing system) outside of the United States

148. Defendant has also infringed, and continues to infringe, claims of the ’614 Patent by offering to commercially distribute, commercially distributing, making, and/or importing the Accused Instrumentalities, which are used in practicing the process, or using the systems, of the ’614 Patent, and constitute a material part of the invention. Defendant knows the components in the Accused Instrumentalities to be especially made or especially adapted for use in infringement of the ’614 Patent, not a staple article, and not a commodity of commerce suitable for substantial noninfringing use. For example, the ordinary way of using the Accused Instrumentalities infringes the patent claims, and as such, is especially adapted for use in infringement. Accordingly, Defendant has been, and currently is, contributorily infringing the ’614 Patent, in violation of 35 U.S.C. § 271(c).

149. Defendant also indirectly infringes the ’614 Patent by supplying or causing to be supplied in or from the United States components of the Accused Instrumentalities that are especially made or especially adapted for use in infringing the ’ 614 Patent and are not a staple article or commodity of commerce suitable for substantial non-infringing use,

and where such components are uncombined in whole or in part, knowing that such components are so made or adapted and intending that such components are combined outside of the United States in a manner that would infringe the ’614 Patent if such combination occurred within the United States. Because the Accused Instrumentalities are designed to operate as the claimed system and apparatus, the Accused Instrumentalities have no substantial non-infringing uses, and any other uses would be unusual, far-fetched, illusory, impractical, occasional, aberrant, or experimental. For example, Defendant supplies or causes to be supplied in or from the United States all or a substantial portion of the hardware (e.g., separate iHeartRadio servers) and software (e.g., iHeartRadio Application) components that are especially made or especially adapted for use in the Accused Instrumentalities, where such hardware and software components are not staple articles or commodities of commerce suitable for substantial noninfringing use, knowing that such components are so made or adapted and intending that such components are combined outside of the United States, as evidenced by Defendant’s own actions or instructions to users in, e.g., combining multiple iHeartMedia servers into infringing systems, and enabling and configuring the infringing functionalities of the Accused Instrumentalities.

150. As a result of Defendant’s infringement of the ’ 614 Patent, Plaintiff Data Scape is entitled to monetary damages in an amount adequate to compensate for Defendant’s infringement, but in no event less than a reasonable royalty for the use made of the invention by Defendant, together with interest and costs as fixed by the Court.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff Data Scape respectfully requests that this Court enter:

a. A judgment in favor of Plaintiff that Defendant has infringed, either literally and/or under the doctrine of equivalents, the ’675 Patent, the ’751 Patent, the ’112 Patent, and ’614 Patent (collectively, “asserted patents”);

b. A permanent injunction prohibiting Defendant from further acts of infringement of the asserted patents;

c. A judgment and order requiring Defendant to pay Plaintiff its damages, costs, expenses, and prejudgment and post-judgment interest for its infringement of the asserted patents, as provided under 35 U.S.C. § 284;

d. A judgment and order requiring Defendant to provide an accounting and to pay supplemental damages to Data Scape, including without limitation, prejudgment and post-judgment interest;

e. A judgment and order finding that this is an exceptional case within the meaning of 35 U.S.C. § 285 and awarding to Plaintiff its reasonable attorneys’ fees against Defendant; and

f. Any and all other relief as the Court may deem appropriate and just under the circumstances.

DEMAND FOR JURY TRIAL

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

Dated: August 21, 2019 Respectfully submitted,

/s/ Reza Mirzaie
Reza Mirzaie

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