IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION

TOUCHSTREAM TECHNOLOGIES, INC. Plaintiff, v. Altice USA, Inc., et al., Defendant.	Lead Case. No. 2:23-cv-00060-JRG **JURY TRIAL DEMANDED**
TOUCHSTREAM TECHNOLOGIES, INC. Plaintiff, v. Charter Communications, Inc., et al., Defendant.	Case No. 2:23-cv-00059
TOUCHSTREAM TECHNOLOGIES, INC. Plaintiff, v. Comcast Cable Communications, LLC, d/b/a XFINITY, et al., Defendant.	Case No. 2:23-cv-00062

TOUCHSTREAM'S DISCLOSURE OF ASSERTED CLAIMS AND INFRINGEMENT CONTENTIONS AND ACCOMPANYING DOCUMENT PRODUCTION

Under Local Patent Rule 3-1 and 3-2, Touchstream Technologies, Inc. ("Touchstream") makes the following Disclosure of Asserted Claims and Infringement Contentions and Accompanying Document Production as to Defendants Altice USA, Inc., CSC Holdings, LLC, Cequel Communications, LLC, Friendship Cable of Texas, Inc. ("Altice Defendants"), Charter

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Communications, Inc., Charter Communications Operating, LLC, Spectrum Gulf Coast, LLC, Spectrum Management Holding Company, LLC, Time Warner Cable LLC ("Charter Defendants"), and Comcast Cable Communications, LLC d/b/a/ XFINITY, Comcast Cable Communications Management, LLC, Comcast Corporation, and Comcast of Houston, LLC ("Comcast Defendants"), collectively called (collectively "Defendants"). Touchstream waives no claim, contention, or argument regarding the factual and/or legal details of the following preliminary infringement contentions. The following should not be construed as Touchstream's preliminary construction of any asserted claim or claim term. Touchstream reserves the right to change, amend, supplement, or otherwise alter these contentions based on receipt of further information that will be provided by, produced by, or otherwise made available by Defendants through discovery that is not available at the time of these disclosures. For example, but without limitation, because Defendants' Accused Functionalities use software and/or firmware to perform certain operations, details regarding the operation of the Accused Functionalities are unavailable to Touchstream. Touchstream reserves the right to amend its contentions under the Court's Discovery Order, should supplementation become necessary. Touchstream reserves the right to contend that the claims do not require further construction, clarification, or interpretation. The claim charts in the attached Exhibits are not designed to represent the entire scope of infringement, but are merely to illustrate examples of manners in which the Accused Functionalities infringe the identified claims of Touchstream's Patents. Further, the division of claim elements in the attached claim charts is neither intended to be a modification of the claim language itself nor an admission that the claims should be construed by the division. Rather, the division of claim elements is provided for convenience and clarity. Touchstream's contentions apply to Defendants' products and any other similar past, present, or future products, as well as systems incorporating the

Defendants' products or other products with the same or substantially similar features. Touchstream reserves all rights to rely on additional evidence in its possession and evidence yet to be discovered.

THE ACCUSED FUNCTIONALITIES

As described in the complaints, Touchstream accuses the Altice Defendants' Altice One and Optimum TV Functionalities of infringement; the Charter Defendants' Spectrum TV Functionalities of infringement; and the Comcast Defendants' Xfinity X1 Functionalities of infringement (collectively, the "Accused Functionalities").

The Accused Altice One and Optimum TV Functionalities

The accused Altice One and Optimum TV functionalities comprise the methods performed through operation of at least the Altice set top box ("STB") devices as well as the Altice One and Optimum TV mobile applications. The accused products did provide in the past, and continue to provide, functionality and structure that facilitates the controlling of content, such as audio and/or video content, on a content presentation device that loads any one of a plurality of different media players described in further detail below.

Upon initial operation, the STB is connected to a device having a screen (e.g., a television). The user then activates their STB with their Altice account information, such as account number and phone number. On information and belief, the STB communicates with Altice servers to register a Device Identifier associated with the user account.

A user may then download and install the Optimum TV or Altice One application on their mobile device (e.g., a smartphone). The mobile application allows users to discover and connect to their STB device, by way of a synchronization code or unique identifier. On information and belief, Altice utilizes a "Device ID," "Login ID," and IP Address to identify and associate the STB.

The STB and mobile application communicate via a server intermediary that associates the two devices. On information and belief, the mobile devices' messages include this synchronization code or unique identifier, and the server uses this information to route messages to the desired STB.

Users may then use the mobile application to browse content. The mobile application presents content on the mobile device screen by title, image, and other metadata such as series seasons and episodes. Users can navigate the mobile application interface to see different content options available to them via their account. On information and belief, the mobile application retrieves content options and information from a remote Altice server.

By browsing content on the mobile application, users may find and select the content they wish to view. Upon finding their desired content, users may pick the content on the mobile application and send a message to the server including information identifying the media and its respective media player. The server communicates the information to the STB so the STB can effect the user's commands, for instance, by loading the content and media player, and beginning playback of their selected TV show.

Users may also use the same mobile application to control playback of content. On information and belief, initial content selection is accompanied by a "play" command, so when a user selects content it automatically begins playing. Further, a user may send play/pause, rewind, fast-forward, and seek commands from the mobile application. On information and belief, the mobile application sends these messages to the server system, which translates or converts them into commands each particular media player can execute.

Defendants provide media from various sources, including Live TV channels, Video on Demand, DVR, and internet media. Users may select content from any of these sources via the

mobile application. The mobile device communicates to the server what media player is required for the specified content. The server system then relays instructions to the STB device to load the corresponding media player. For instance, on information and belief, Live TV and Video on Demand use different media codecs. Different media players handle these codecs, and allow for similar viewing experiences for the end user.

Each of the steps discussed above is either performed by or otherwise attributable to Defendants. To the extent another actor performs any of these steps, Defendants direct or control that performance, conditioning participation in the activity or the receipt of a benefit upon performance of the patented method steps, and establishing the manner or timing of that performance. Additionally, Defendants profit from their infringement and have the right and ability to stop or limit the infringement. For instance, Defendants test and demonstrate the accused functionality, including in advertisements. Further, Defendants advertise and demonstrate to customers that the infringing method steps will be performed, as shown above. Further, Defendants cause automatic updates to the Altice One and Optimum TV systems. As discussed below, the functionality advertised and directed by Defendants infringes the Touchstream Patent, and on information or belief, is known by Defendants to do so.

The Accused Spectrum TV Functionalities

The accused Spectrum TV App functionalities comprise the methods performed through operation of at least the Spectrum set top box ("STB") devices as well as the Spectrum TV mobile applications. The accused products did provide in the past, and continue to provide, functionality and structure that facilitates the controlling of content, such as audio and/or video content, on a content presentation device that loads any one of a plurality of different media players described in further detail below.

The accused Spectrum TV App functionalities comprise the methods performed through operation of at least the Spectrum set top box ("STB") devices as well as the Spectrum TV mobile applications. The accused products did provide in the past, and continue to provide, functionality and structure that facilitates the controlling of content, such as audio and/or video content, on a content presentation device that loads any one of a plurality of different media players described in further detail below.

A user may then download and install the Spectrum TV application on their mobile device (e.g., a smartphone). The mobile application allows users to discover and connect to their STB device, by way of a synchronization code or unique identifier. On information and belief, Spectrum STBs have Device Identifiers. By way of non-limiting examples, each STB has a unique "Receiver Name" and a "Unit Address" to identify and associate the STB. The STB and mobile application communicate via a server intermediary that associates the two devices. On information and belief, the mobile devices' messages include this synchronization code or unique identifier, and the server uses this information to route messages to the desired STB.

Users may then use the Spectrum TV application to browse and discover content. The mobile application presents content on the mobile device screen by title, image, and other metadata such as series seasons and episodes. Users can navigate the mobile application interface to see different content options available to them via their Spectrum account. Spectrum provides content from a variety of sources, for example Live TV, DVR, or Video on Demand sources. On information and belief, the mobile application retrieves content options and information from a remote Spectrum server.

By browsing content on the mobile application, users may find and select the content they wish to view. Upon finding their desired content, users pick the content on the mobile application

and press “watch on TV” to send a message to a server system including information identifying the media and its respective media player. The server system communicates this information to the STB so the STB can effect the user’s commands, for instance, by loading the content and media player, and beginning playback of their selected TV show.

Users may also use the same mobile application to control playback of content. On information and belief, initial content selection is accompanied by a “play” command, so when a user selects content it automatically begins playing. Further, on information and belief, a user may send play/pause, rewind, fast-forward, and seek commands from the mobile application. On information and belief, the mobile application sends these messages to the server system, which translates or converts them into commands each particular media player can execute, and stores a record of the message.

Spectrum provide media from various sources, for example Live TV channels, or Video on Demand. Users may select content from any of these sources via the mobile application. The mobile device communicates to the server what media player is required for the specified content. The server system then relays instructions to the STB device to load the corresponding media player. For instance, on information and belief, Live TV and Video on Demand use different media codecs. Different media players handle these codecs, and allow for similar viewing experiences for the end user.

Each of the steps discussed above is either performed by or otherwise attributable to Spectrum. To the extent another actor performs any of these steps, Spectrum directs or controls that performance, conditioning participation in the activity or the receipt of a benefit upon performance of the patented method steps, and establishing the manner or timing of that performance. Additionally, Spectrum profits from their infringement and have the right and ability

to stop or limit the infringement. For instance, Spectrum tests and demonstrates the accused functionality, including in advertisements. Further, Spectrum advertises and demonstrates to customers that the infringing method steps will be performed, as shown above. Further, Spectrum cause automatic updates to the Spectrum TV systems. As discussed below, the functionality advertised and directed by Spectrum infringes the Touchstream Patent, and on information or belief, is known by Spectrum to do so.

The Accused Xfinity X1 Functionalities

The accused Xfinity X1 functionalities comprise the methods performed through operation of at least the standalone X1 Set Top Box ("STB") devices as well as Xfinity mobile applications used in conjunction with X1 STBs. The X1 products did provide in the past, and continue to provide, functionality and structure that facilitates the controlling of content, such as audio and/or video content, on a content presentation device that loads any one of a plurality of different media players (Pandora or Netflix, e.g.), described in further detail below.

Upon initial operation, the X1 STB is connected to a device having a screen (e.g., a television). The user then activates their STB with their Xfinity account information, such as account number and phone number.11On information and belief, the X1 STB communicates with Comcast servers to register a Device Identifier that is associated with the user account.

Upon initialization, the STB presents the user with various applications and media options, including live TV, DVR, and web-based media streaming applications, as pictured below. Each option uses a different application on the STB for media playback, but the user is presented a single unified menu interface. The STB presents the user with a main menu interface including options of, among other things, "Saved," "On Demand," "Apps," and "Guide." An example of this is shown below.

Selecting “Saved” from the main menu shows a list of their recording DVR programs, alongside purchased movies and TV shows associated with their user account. An example of this is shown below.

Selecting “On Demand” from the main menu shows a menu of video content available for viewing, including TV shows and movies. An example of this is shown below.

Selecting “Apps” from the main menu shows a menu of internet media applications that can be used to stream digital media. For example, users may launch Pandora, Netflix, or Prime Video applications from this menu. An example of this is shown below. On information and belief, Xfinity also facilitates casting digital media from a personal computing device to the X1 STB.

Selecting “Guide” from the main menu shows users a traditional Cable TV guide that allows users to browse and view programming from live cable TV channels. An example of this is shown below.

Further, users may download and install the “Xfinity Stream” app to their mobile devices and register with their Xfinity account. The Xfinity Stream mobile app allows for viewing the above media from the user’s mobile device, as pictured below.

Further, users may download and install the “Xfinity TV Remote” mobile application. The TV Remote application allows browsing of media and control of the X1 STB, such as the above described interfaces, from a user’s mobile device. An example of this is shown below.

Each Xfinity STB associates with unique identifiers, including Device ID, Device Unique ID, network information, and user account information.13The STB provides a “Device Name” and “Device ID” to users, which they can view from the display device via the “Settings” option from the STB main menu. This Device ID uniquely identifies the STB. Furthermore, the STB presents

a “friendly name” allowing users to identify a particular device associated with their account on their network. An example of this is provided below.

From the home page, users can see various content options. Each content option has an identifier connected to it that allows the STB to locate and present that particular content. On information and belief, each content option has a corresponding “entityId,” and “appId” that the STB can use to locate and retrieve the content. AppId corresponds to the application (and respective media player) which can present that content. The application then references the entityId to retrieve the content.

On information and belief, when a user selects an application, the server system also registers a session token and a unique identifier, each of which (1) identify the user’s viewing session, (2) are associated with the application, and (3) are associated with the user’s account information.

The user may also download and open the Xfinity TV Remote application (or “app”) on the user’s mobile device, which allows control of each of the above functionalities, and further allows selection of media players and content on a personal computing device. Upon opening the Xfinity TV Remote application on the mobile device, the user is prompted to log in to their Xfinity account. Upon sign-in, the app displays a list of STBs to control. The application then prompts the user to pick a STB. On information and belief, the STB is associated with the user’s mobile application by a Device ID, Device Name, user account credentials, or a combination thereof. Upon selection, the Xfinity TV Remote app and STB are linked.

The STB friendly name appears to users on the Xfinity TV Remote app, allowing them to easily see which unique device corresponds to STBs in their home. An example of the friendly name appearing within the TV Remote app is provided below.

Once connected to the STB, the Xfinity TV Remote app presents users with content choices, which they can browse from a user interface on the mobile device. Upon selection of content, control options are given to the user such as “Watch on TV” or “Record Options.”

Upon touching “Watch on TV,” a viewing session is established and the content begins playback on the display screen via the STB. Further playback control is enabled via the TV remote mobile app.

Xfinity servers convert universal control commands from the mobile device, such as “play,” into specific commands the media player can execute, depending on what particular media player is required. For instance, Xfinity allows viewing of pre-recorded DVR content, live cable content, or online media. Each of these options requires a different media player. If a user selects “play” or “watch” command for a live TV show, the command may be converted to a “tune to channel” programming code to control playback of live TV content on the X1 STB. “Play” may also turn into a command for a web-based media player utilized by a third party application such as Netflix.

On information and belief, STB remotes utilize universal playback control commands, such as “play/pause” or “rewind,” which Xfinity server systems convert into corresponding programming code for use by different particular media players.

The messages sent from the mobile device and received by the server system include a network address, such as an IP address of the X1 STB device, which is assigned to and uniquely identifies the equipment. The network address and “Device Name” (e.g. “Living Room”) are locally unique to the particular X1 STB within the user’s local access network. On information and belief, the server system stores a record based on these messages associating the mobile device

with the X1 STB, for instance so that an app running on the mobile device continually recognizes which X1 STB device (e.g., "Living Room") is currently casting and can be controlled.

The messages sent from the mobile device and received by the server system include messaging that specifies a media file (e.g., audio or video) to be acted upon. The media file to be acted upon may be specified by providing, for instance, the uniform resource locator (URL) of the media file, for instance as specified by the HTML5 video tag "video.src."

The messages sent from the mobile device and received by the server system further include messaging that identifies an application for playing content from the specified media file. The media player may then be loaded onto the X1 STB via the resolved URL. On information and belief, the X1 STB utilizes at least four web media players, including HLS.js, DASH.js, Shaka, and RDK AAMP. On information and belief, the X1 STB also utilizes media players to present live TV and DVR content.

Through the managing of the X1 STB by the server, and through the Xfinity's processing of messaging sent by the Xfinity-compatible app running on the mobile device—as described at ¶¶ 43-55, supra—the X1 system allows the user to consume media content on a remote device, separate from the user's mobile device, where the media content and the application for playing it may be downloaded from the network rather than from the mobile device itself. The user is therefore free to use his or her mobile device for other purposes during playback of the media on the remote device via the X1 STB.

Each of the steps discussed above is either performed by or otherwise attributable to Comcast. To the extent another actor performs any of these steps, Comcast directs or controls that performance, conditioning participation in the activity or the receipt of a benefit upon performance of the patented method steps, and establishing the manner or timing of that performance.

Additionally, Comcast profits from its infringement and has the right and ability to stop or limit the infringement. For instance, Comcast tests and demonstrates the accused functionality, including in advertisements. Further, Comcast advertises and demonstrates to customers, and directs to X1 developers, that the infringing method steps will be performed, as shown above. Further, Comcast causes automatic updates to the X1 system. As discussed below, the functionality advertised and directed by Comcast infringes the Touchstream Patent, and on information or belief, is known by Comcast to do so.

Disclosure of Asserted Claims and Infringement Contentions

1. Disclosure Under P.R. 3-1(a)

Touchstream asserts that the Altice Defendants infringes at least claims 1, 2, 5, 7, 8 and 9 of U.S. Pat. No. 8,356,251 ("the '251 patent"); at least claims 12, 13, 14, 16 of U.S. Pat. No. 11,048,751 ("the '751 Patent"); at least claims 17, 18, 19, and 20 of U.S. Pat. No. 11,086,934 ("the '934 Patent"). Touchstream alleges that Altice infringes each of the asserted claims of the patent-in-suit directly, contributorily, and/or by inducement including under 35 U.S.C. § 271, as alleged in the Complaint.

Touchstream asserts that the Charter Defendants infringe at least claims 1, 2, 5, 7, 8 and 9 of the '251 patent. Touchstream alleges that Charter infringes each of the asserted claims of the patent-in-suit directly, contributorily, and/or by inducement including under 35 U.S.C. § 271, as alleged in the Complaint.

Touchstream asserts that the Comcast Defendants infringe at least claims 1, 2, 5, 7, 8 and 9 of the '251 patent. Touchstream alleges that Comcast infringes each of the asserted claims of the patent-in-suit directly, contributorily, and/or by inducement including under 35 U.S.C. § 271, as alleged in the Complaint.

2. Disclosure Under P.R. 3-1(b)

Touchstream accuses the Altice Defendants of infringement of at least claims 1, 2, 5, 7, 8 and 9 of the ’251 patent, at least claims 12, 13, 14, 16 of the ’751 Patent, and at least claims 17, 18, 19, and 20 of the ’934 Patent through the accused Altice One and Optimum TV Functionalities. Touchstream accuses the Charter Defendants of infringement of at least claims 1, 2, 5, 7, 8 and 9 of the ’251 patent through their Spectrum TV platform. Touchstream accuses the Comcast Defendants of infringement of at least claims 1, 2, 5, 7, 8 and 9 of the ’251 patent through their XFINITY X1 Platform.

Discovery in this matter is ongoing and Touchstream’s investigation regarding the grounds contained herein and other grounds of infringement continues. Touchstream has not yet obtained source code through discovery, which prevents Touchstream from ascertaining certain details of the Accused Functionalities. Further, Touchstream has not yet obtained 30(b)(6) deposition testimony on the operation of the Accused Functionalities. This disclosure is given without prejudice to Touchstream’s right to amend or supplement this disclosure as additional facts are ascertained, analysis is made, research is completed, and claims are construed.

These disclosures are based at least in part on Touchstream’s present understanding of the meaning and scope of the claims of the patents-in-suit absent discovery. Touchstream reserves the right to seek leave to supplement or amend these disclosures if these understandings change or, for example, based on any further claim construction by the Court, further disclosures and productions by Defendants, and depositions of Depositions and/or third parties.

3. Disclosure of Under P.R. 3-1(c)

Charts identifying where each element of each asserted claim is found within the Accused Functionalities are in the attached Exhibits. Touchstream expressly reserves the right to augment

and supplement its infringement contentions based upon additional information obtained, including but not limited to source code, through formal discovery.

4. Disclosure Under P.R. 3-1(d)

Touchstream believes that each element of each asserted claim is literally present in the Accused Functionalities. To the extent any element of any claim is not literally present in any Accused Functionality, Touchstream contends that each such element is present under the doctrine of equivalents. Touchstream will supplement and/or amend its infringement contentions regarding the doctrine of equivalents in light of ongoing discovery and/or the Court's claim construction rulings.

5. Disclosure Under P.R. 3-1(e)

Each of the Asserted Claims of the '251 Patent is entitled to a priority date of April 21, 2011.

Each of the Asserted Claims of the '751 Patent is entitled to a priority date of April 21, 2011.

Each of the Asserted Claims of the '934 Patent is entitled to a priority date of April 21, 2011.

Touchstream reserves its rights to amend the priority date of the Patents based on discovery in this case, including any discovery from third parties.

6. Disclosure Under P.R. 3-1(f)

Touchstream identifies the following products, whose operation practiced claims 1, 2, 5, 7, 8 and 9 of the '251 patent: Touchstream products, including Shodogg, Screendirect, Mr Strober's prototypes, and white-label products (including, e.g., for Quadriga and HP).

Document Production Accompanying Disclosure

1. Disclosure Under P.R. 3-2(a)

Touchstream is not presently aware of any such discoverable documents in its possession, custody, or control.

2. Disclosure Under P.R. 3-2(b)

Touchstream produces various documents related to Mr. Strober's development of the claimed invention: TS_ALTICE_00000001 to TS_ALTICE_00011736; TS_COMCAST_00000001 to TS_COMCAST_00011736; or TS_CHARTER_00000001 to TS_CHARTER_00011736

3. Disclosure Under P.R. 3-2(c)

Touchstream produces a copy of the file histories of the patents-in-suit at TS_ALTICE_00011737 to TS_ALTICE00013860; TS_COMCAST_00011737 to TS_COMCAST_00012294; or TS_CHARTER_00011737 to TS_CHARTER_00012294.

CONCLUSION

Consistent with the Federal Rules of Civil Procedure, Touchstream expressly reserves the right to supplement this disclosure, including the right to supplement its disclosure asserted claims and infringement contentions, as discovery is ongoing and additional information regarding Defendants' acts of infringement are likely to be uncovered through the course of discovery.

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Respectfully Submitted,

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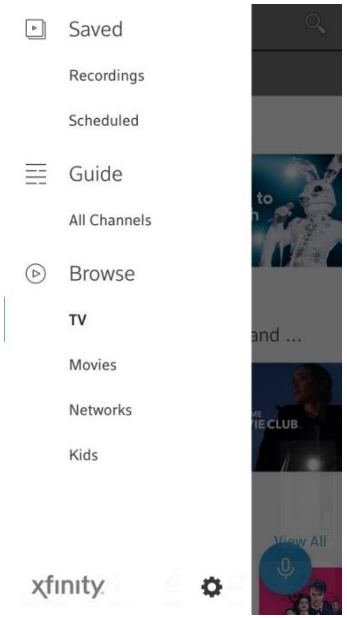
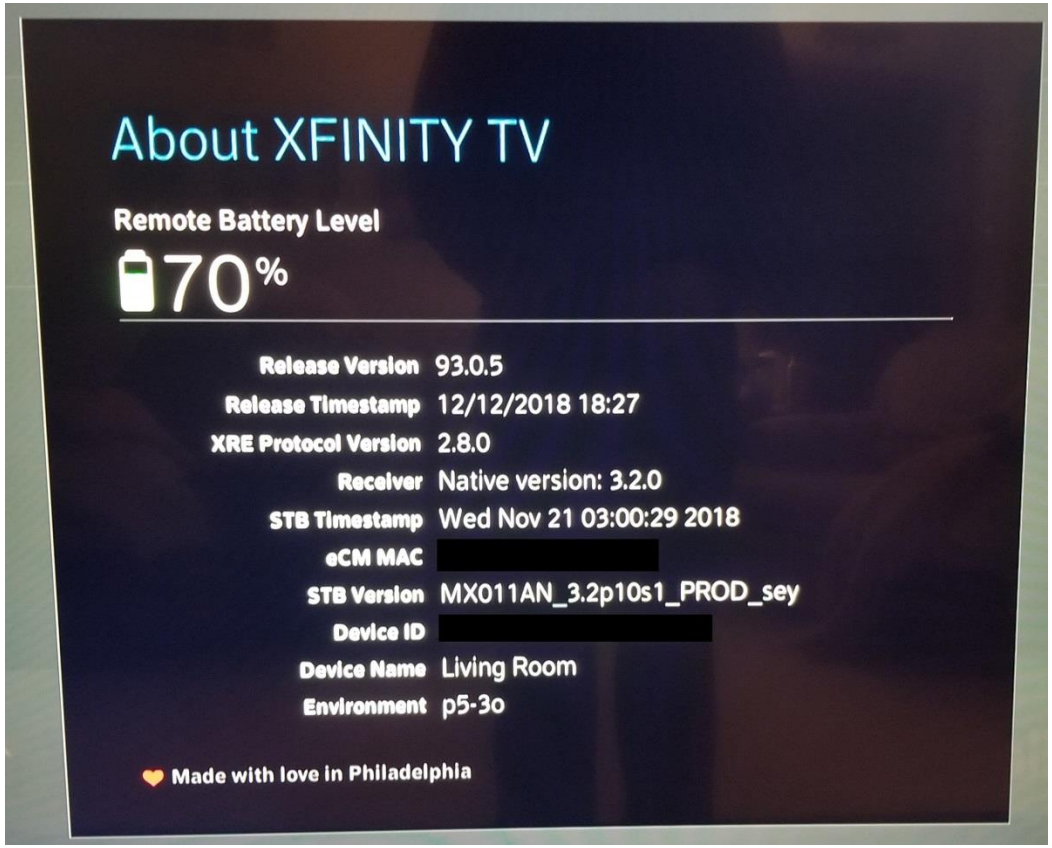
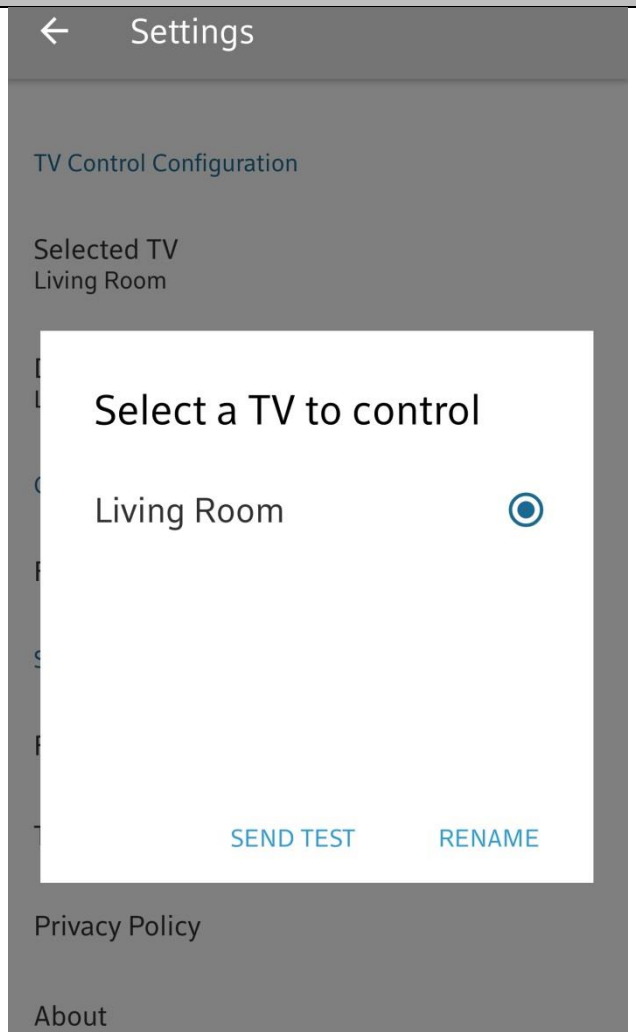
CERTIFICATE OF SERVICE

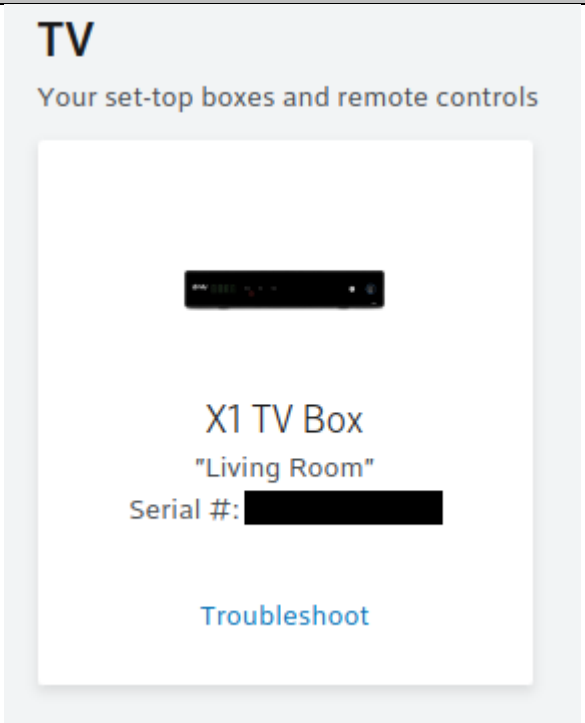
Pursuant to the Federal Rules of Civil Procedure and Local Rule CV-5, I hereby certify that on May 19, 2023, I electronically produced the foregoing with all counsel of record by electronic mail.

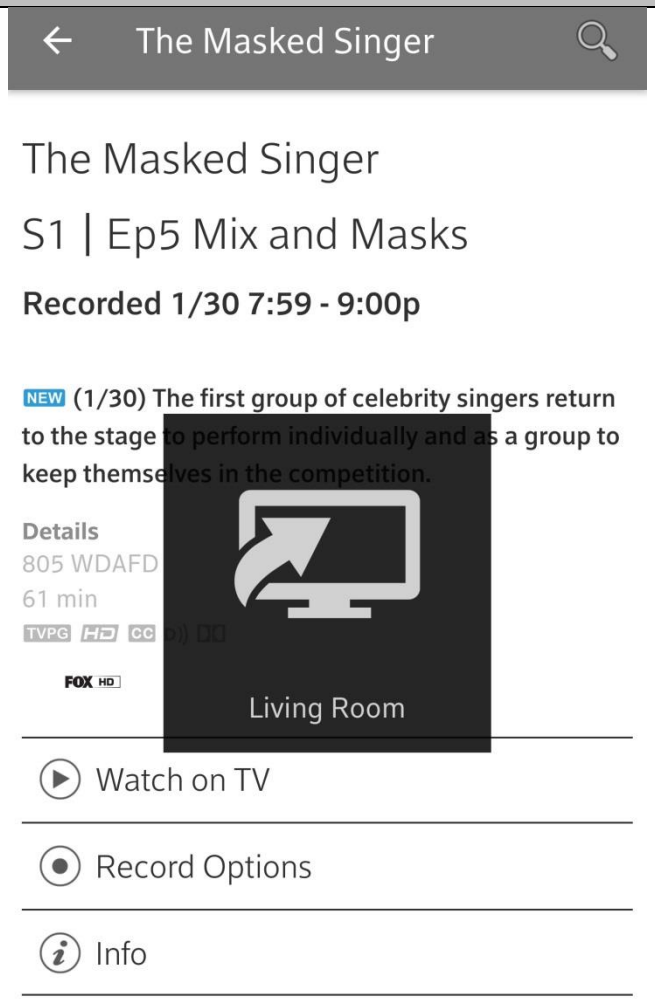
/s/ Michael W. Gray

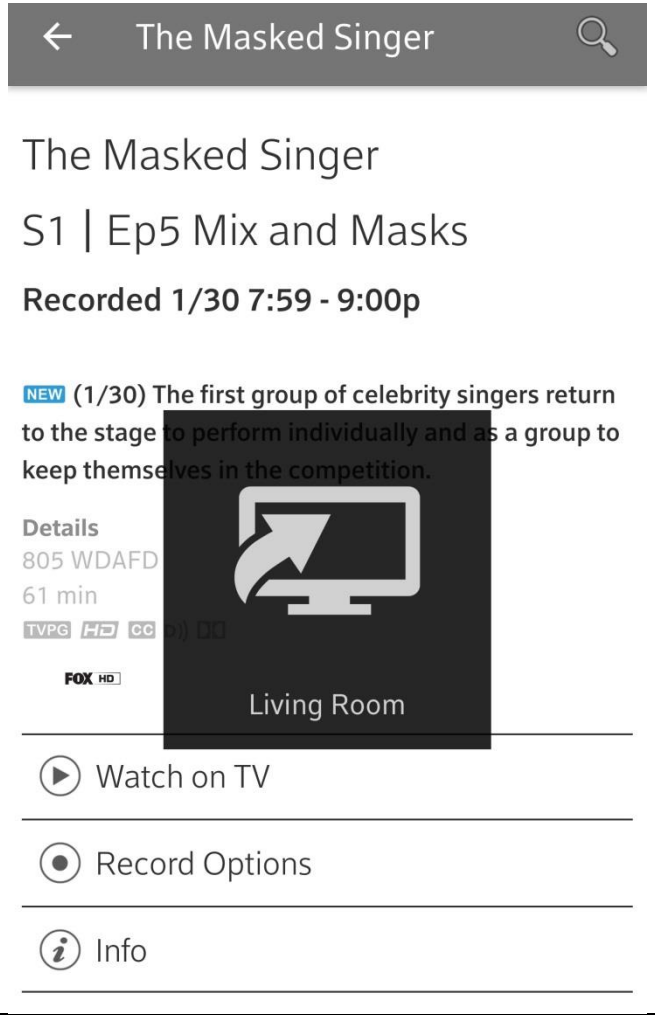
U.S. Patent No. 8,356,251	**XFINITY X1 Platform**
1.p. A machine-implemented method of controlling presentation of video content on a display device that loads any one of a plurality of different media player players, the method comprising:	XFINITY performs a machine-implemented method of controlling presentation of video content on a display device that loads any one of a plurality of different media players. For instance, XFINITY TV Remote application users can control presentation of video content on an X1 set-top-box (STB) that loads content from any one of a plurality of sources including live TV channels, DVR recordings, and on-demand movies and television programs.  Screenshot of XFINITY TV Remote app running on Android. X1 STB (stock photo).

U.S. Patent No. 8,356,251	**XFINITY X1 Platform**
1.a. assigning, by a server system, a synchronization code to the display device;	XFINITY assigns a synchronization code to the display device. For instance, the X1 STB features a Device ID which uniquely identifies the equipment. Additionally, X1 STBs are assigned a Device Name, such as "Living Room", which are presented to users of XFINITY's TV Remote application and used to identify a particular device on the user's home network. STBs are also assigned an IP address, and MAC address  Screenshot of X1 STB "About" screen.

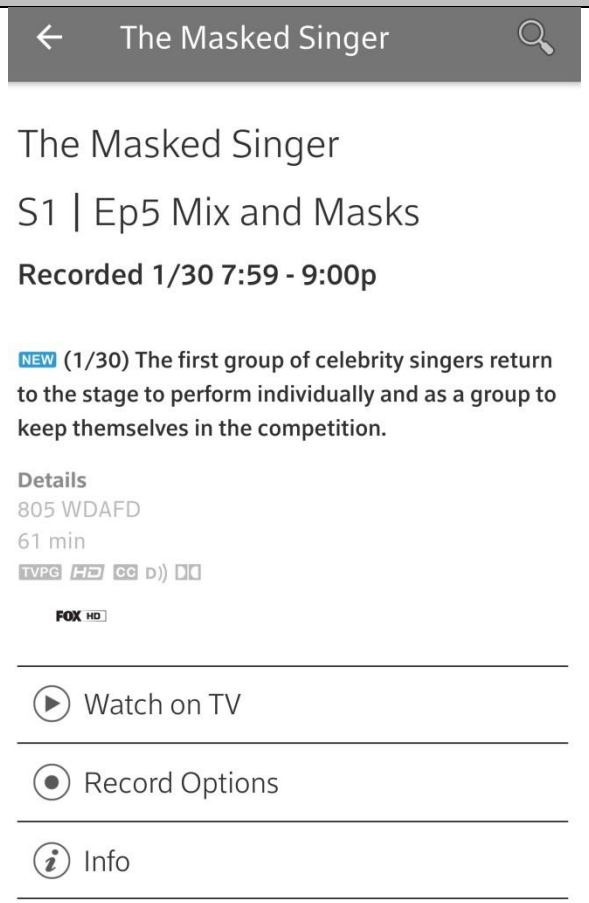
U.S. Patent No. 8,356,251	**XFINITY X1 Platform**
	 Screenshot of TV Remote app selected equipment screen.

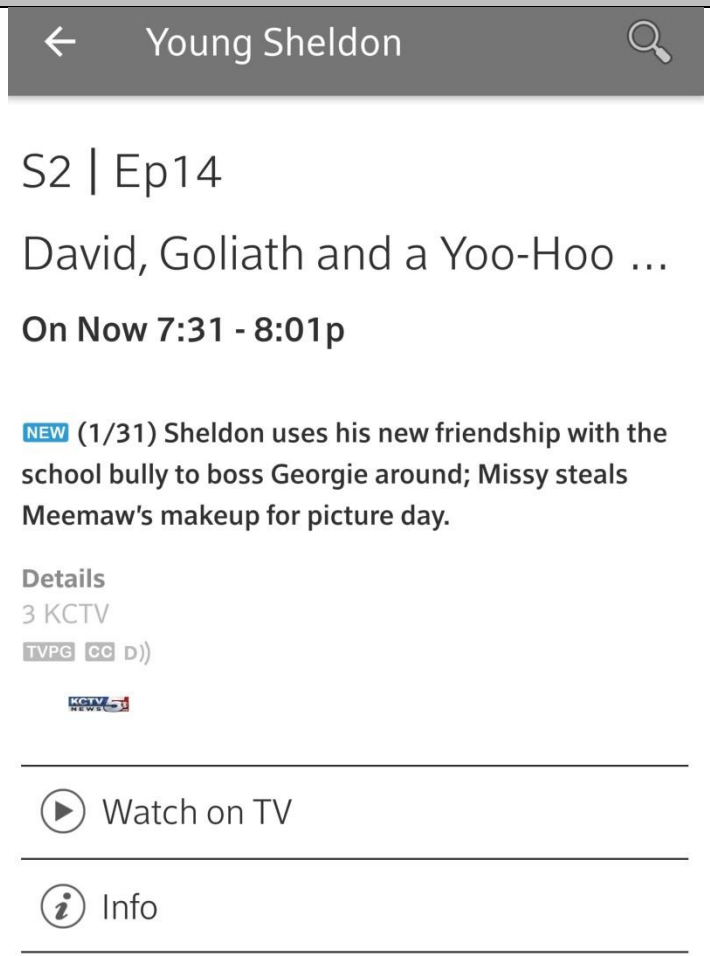
U.S. Patent No. 8,356,251	**XFINITY X1 Platform**
	 https://customer.xfinity.com/#/devices
1.b. receiving, in the server system, a message from a personal computing device that is separate from the server system and separate from the display device,	XFINITY servers receive a message from a personal computing device that is separate from the server system and separate from the display device. For instance, an XFINITY user's mobile device (smartphone or tablet running XFINITY's TV Remote app) sends messages related to authentication, device selection, and content selection to XFINITY servers, including at least XFINITY STBs, network head-ends, and/or other XFINITY devices.

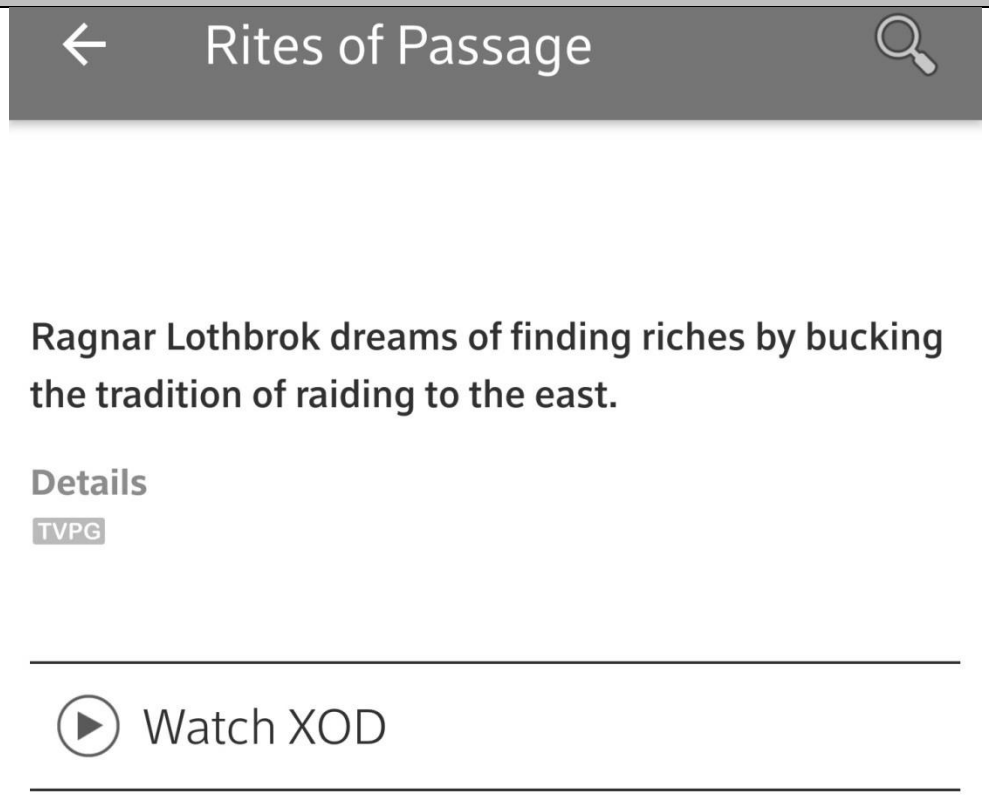
U.S. Patent No. 8,356,251	XFINITY X1 Platform
	 Screenshot of TV Remote app issuing “Watch on TV” command identifying “Living Room” equipment.

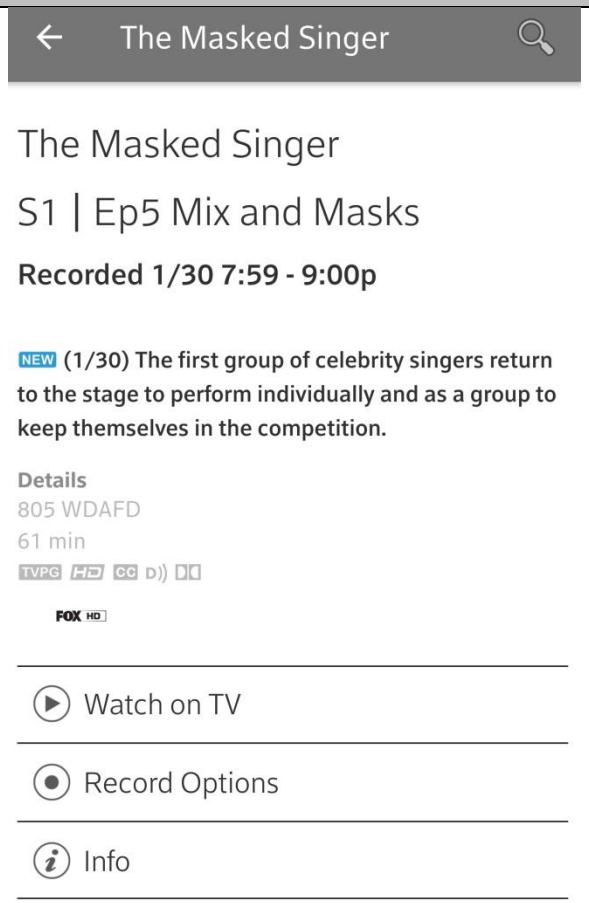
U.S. Patent No. 8,356,251	**XFINITY X1 Platform**
1.b.(i). wherein the message includes the synchronization code;	On information and belief, messages from XFINITY's TV Remote app include at least identifiers related to authentication and device selection, a Device Name, IP address, and MAC address. 

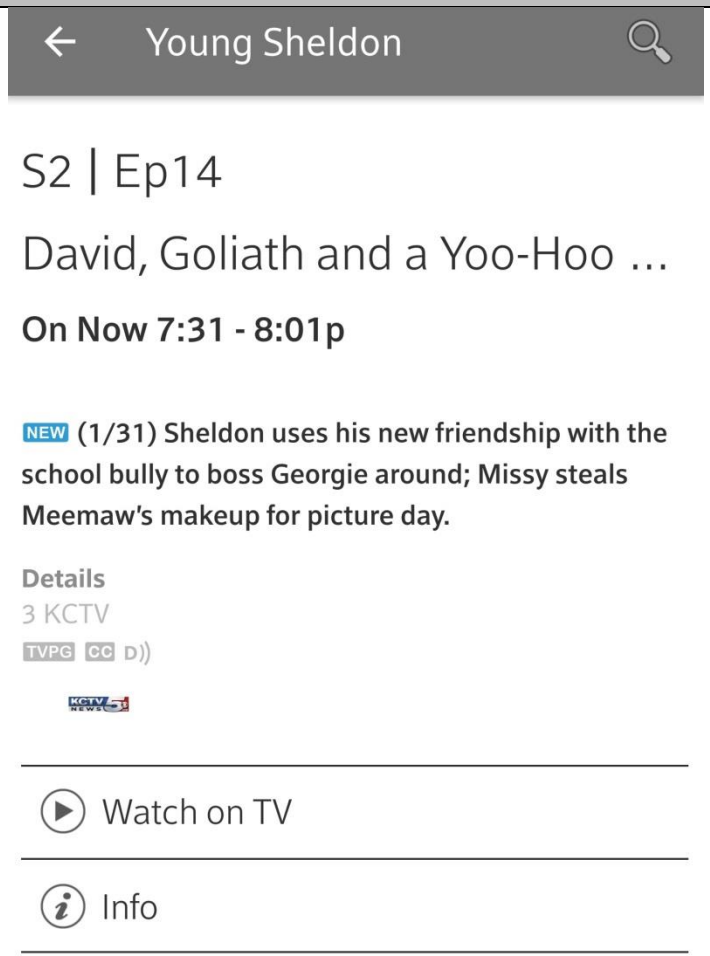
U.S. Patent No. 8,356,251	**XFINITY X1 Platform**
	Screenshot of TV Remote app issuing "Watch on TV" command identifying "Living Room" equipment.
1.c. storing, by the server system, a record establishing an association between the personal computing device and the display device based on the synchronization code;	On information and belief, XFINITY servers store a record establishing an association between the personal computing device and the display device based on the synchronization code. For instance, at least XFINITY STBS, network head-ends, and/or other XFINITY devices store information including at least identifiers related to authentication and device selection, Device Names, IP addresses, and/or MAC addresses that establish an association between the personal computing device and display device (e.g., associating user account credentials and paired STB devices).
1.d. receiving, in the server system, one or more signals from the personal computing device, the one or more signals specifying a video file to be acted upon and identifying a particular media player for playing the video content,	XFINITY servers receive one or more signals from the personal computing device, the one or more signals specifying a video file to be acted upon and identifying a particular media player for playing the video content. For instance, messages from a user's XFINITY TV Remote app include information specifying content to be played, as well as identifying a source (e.g. live TV, DVR recording, On-Demand) for playing the content on the X1 STB.

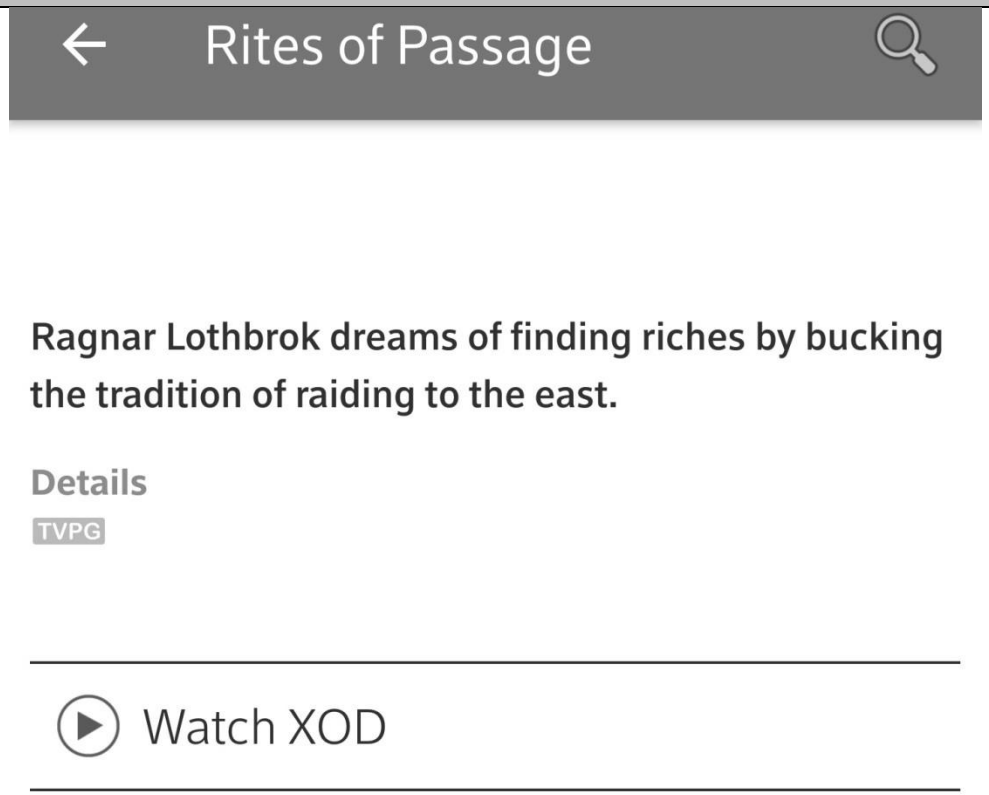
U.S. Patent No. 8,356,251	XFINITY X1 Platform
	 Screenshot of TV Remote app selecting DVR recorded content.

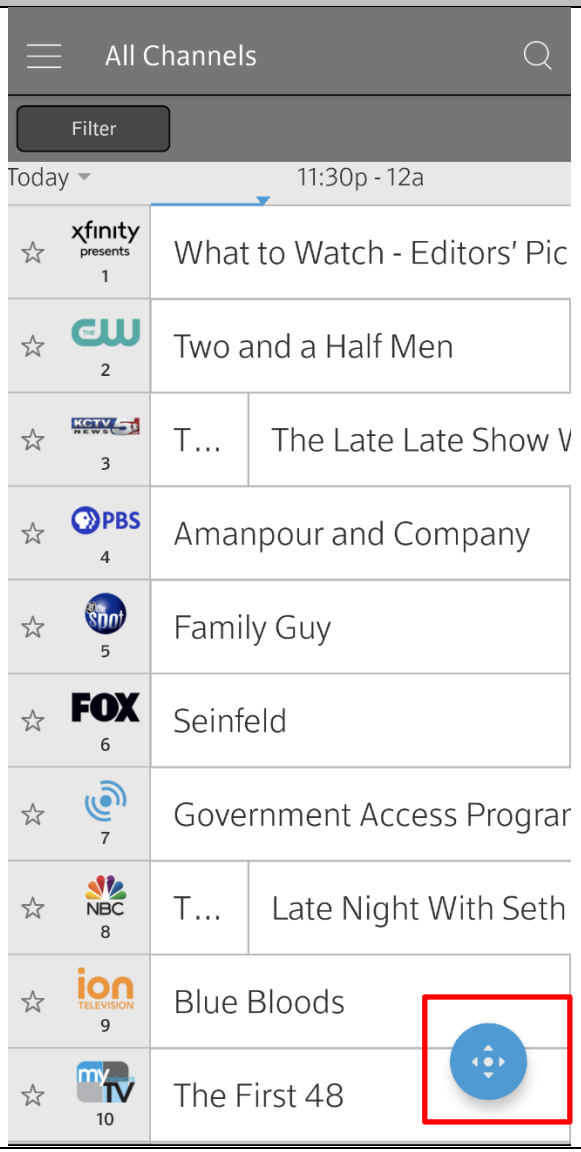
U.S. Patent No. 8,356,251	XFINITY X1 Platform
	 Screenshot of TV Remote app selecting live TV content.

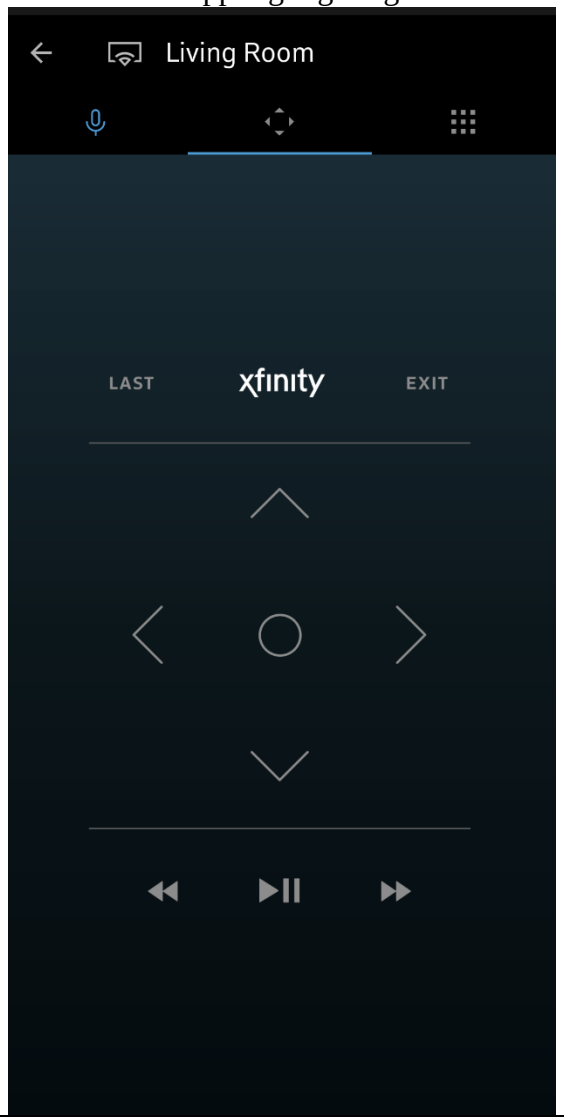
U.S. Patent No. 8,356,251	**XFINITY X1 Platform**
	 Screenshot of TV Remote app selecting video on-demand content.
1.d.(i). the one or more signals further including a universal playback control command for controlling playing of the video content on the	On information and belief, the messages from a user's XFINITY TV Remote app further include a universal playback control command for controlling playing of the video content on the display device by the particular media player. For instance, a "play" or "watch" command may be indicated in the message.

U.S. Patent No. 8,356,251	**XFINITY X1 Platform**
display device by the particular media player,	 Screenshot of TV Remote app selecting DVR recorded content.

U.S. Patent No. 8,356,251	XFINITY X1 Platform
	 Screenshot of TV Remote app selecting live TV content.

U.S. Patent No. 8,356,251	XFINITY X1 Platform
	 Screenshot of TV Remote app selecting video on-demand content.

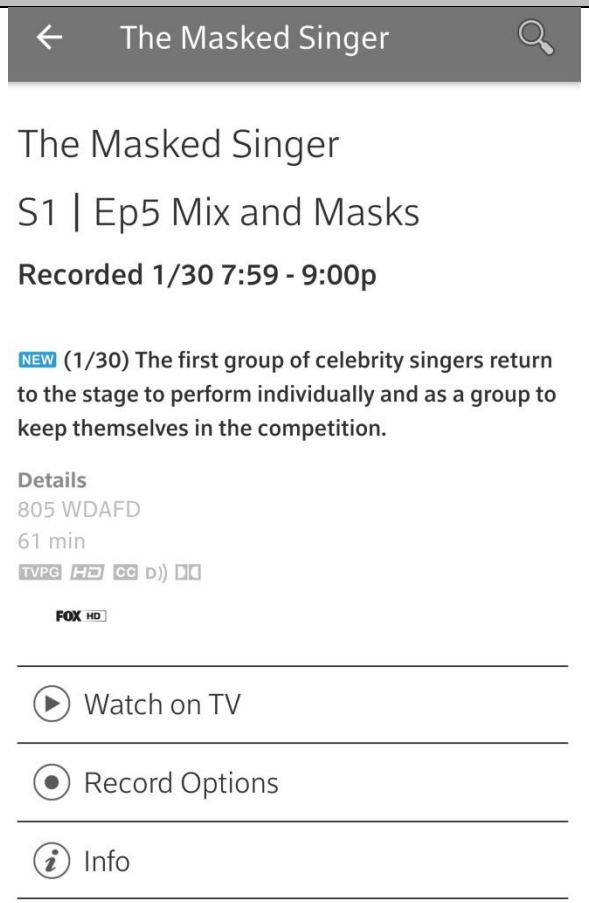
U.S. Patent No. 8,356,251	XFINITY X1 Platform
	

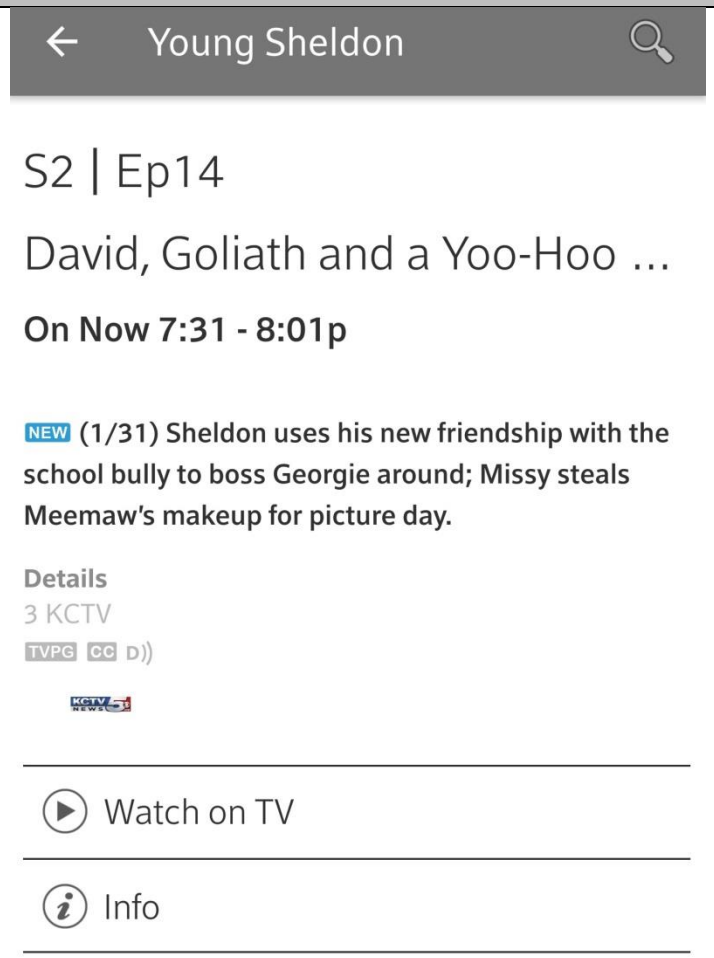
U.S. Patent No. 8,356,251	**XFINITY X1 Platform**
	Screenshot of TV Remote app highlighting remote control function. 

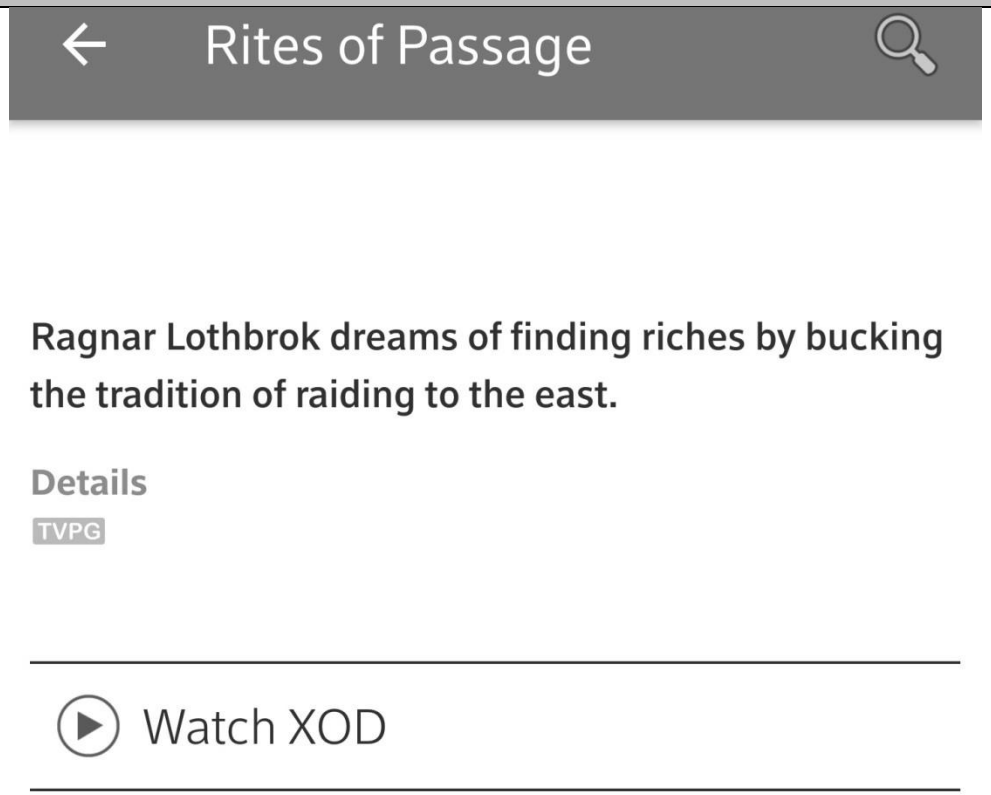
U.S. Patent No. 8,356,251	**XFINITY X1 Platform**
	Screenshot of TV Remote app remote control functions including menu/navigation, rewind, play/pause, and fast forward.
1.f. converting, by the server system, the universal playback control command into corresponding programming code to control playing of the video content on the display device by the particular media player,	On information and belief, XFINITY servers convert the universal playback control command into corresponding programming code to control playing of the video content on the display device by the particular media player. For instance, a "play" or "watch" command for live TV may be converted to a "tune to channel" programming code to control playback of the video content on the X1 STB. Additionally, a "play" or "watch" command for DVR recorded content may be converted to programming code to load the corresponding program from the X1 STB's hard disk and begin playback. Similarly, a "play" or "watch" command for On-Demand content may be converted to programming code to launch the On-Demand interface and begin streaming the selected video content on the X1 STB.
1.f.(i). wherein converting the universal playback control command includes selecting from among a plurality of specific commands, each of which represents a corresponding playback control command for a respective media player; and	On information and belief, converting commands from the XFINITY TV Remote app includes selecting from among a plurality of specific commands representing a corresponding playback control command for a respective content source (e.g. live TV, DVR recording, On-Demand). For instance, on information and belief, different content sources use different media players, and therefore require different specific commands corresponding to the playback control commands.
1.g. storing, in a database associated with the server system, information for transmission to or retrieval by the display device,	On information and belief, XFINITY stores information for transmission to or retrieval by the display device in a database associated with the server system. For instance, user selections may be stored at least for statistical purposes, as well as to buffer commands to be sent to the selected STB.

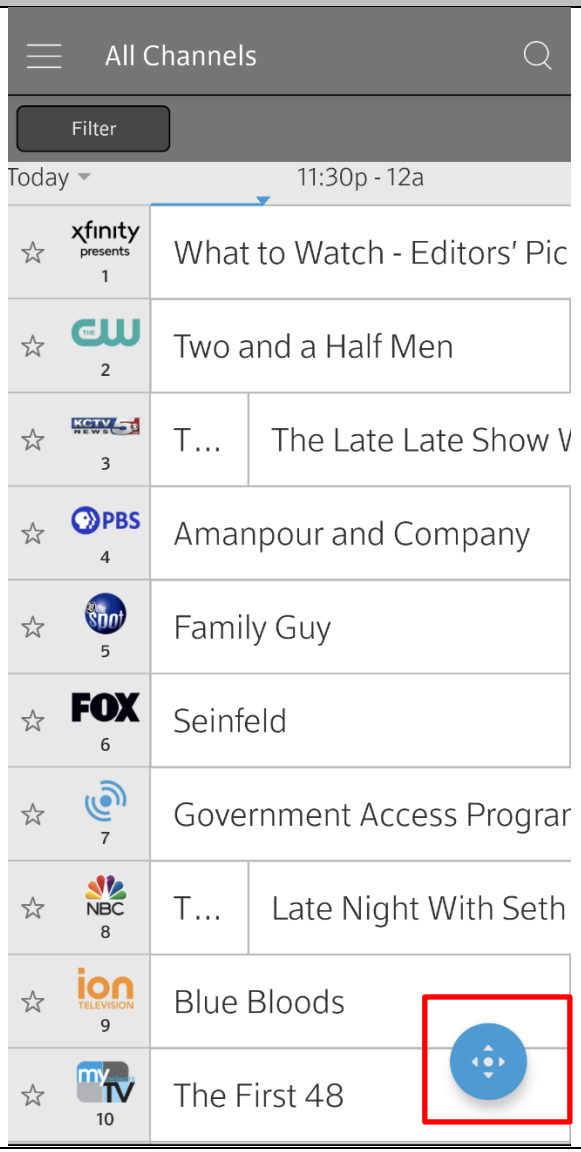
U.S. Patent No. 8,356,251	**XFINITY X1 Platform**
1.g.(i). wherein the information specifies the video file to be acted upon, identifies the particular media player for playing the video content, and includes the corresponding programming code to control playing of the video content on the display device by the particular media player in accordance with the universal playback control command.	On information and belief, the information stored in the database specifies the video file to be acted upon, identifies the particular media player for playing the video content, and includes the corresponding programming code to control playing of the video content on the display device by the particular media player in accordance with the universal playback control command. For instance, information related to the content source, selected content, and playback control commands may be stored at least for statistical purposes, as well as to buffer commands to be sent to the selected STB.
2. The method of claim 1 including: **2.a.** checking, in the server system, the identity of the media player identified in the one or more signals from the personal computing device;	On information and belief, XFINITY performs the method of claim 1 further including checking, in the server system, the identity of the media player identified in the one or more signals from the personal computing device.
2.b. loading an appropriate set of protocols or application programming interfaces from a library based on	On information and belief, XFINITY loads an appropriate set of protocols or application programming interfaces from a library based on the identity of the media player. For instance, based on the source (e.g., live TV, DVR recording, On-Demand), an appropriate set of protocols or application programming interfaces is loaded from a library.

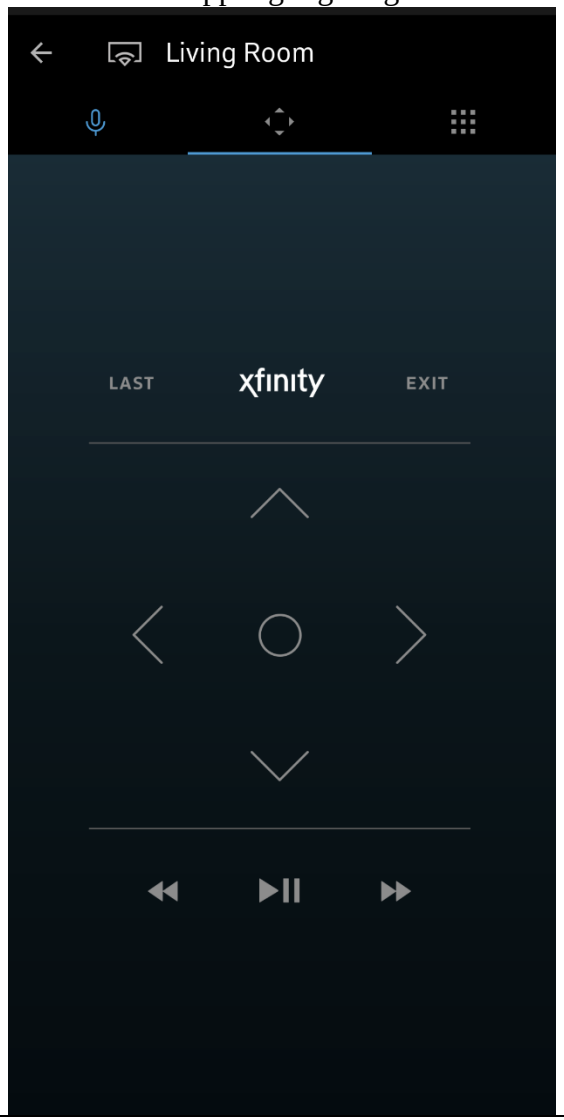
U.S. Patent No. 8,356,251	**XFINITY X1 Platform**
the identity of the media player; and	
2.c. converting the command from the personal computing device into corresponding code to control the media player.	On information and belief, XFINITY converts the command from the personal computing device into corresponding code to control the media player. For instance, a "play" or "watch" command for live TV may be converted to a "tune to channel" programming code to control playback of the video content on the X1 STB. Additionally, a "play" or "watch" command for DVR recorded content may be converted to programming code to load the corresponding program from the X1 STB's hard disk and begin playback. Similarly, a "play" or "watch" command for On-Demand content may be converted to programming code to launch the On-Demand interface and begin streaming the selected video content on the X1 STB.
5. The method of claim 1 wherein the universal command represents an instruction to play the video content, to stop playing the video content or to pause playing the video content.	XFINITY performs the method of claim 1 wherein the universal command represents an instruction to play the video content, to stop playing the video content or to pause playing the video content. For instance, a "play" or "watch" command may be indicated in the message.

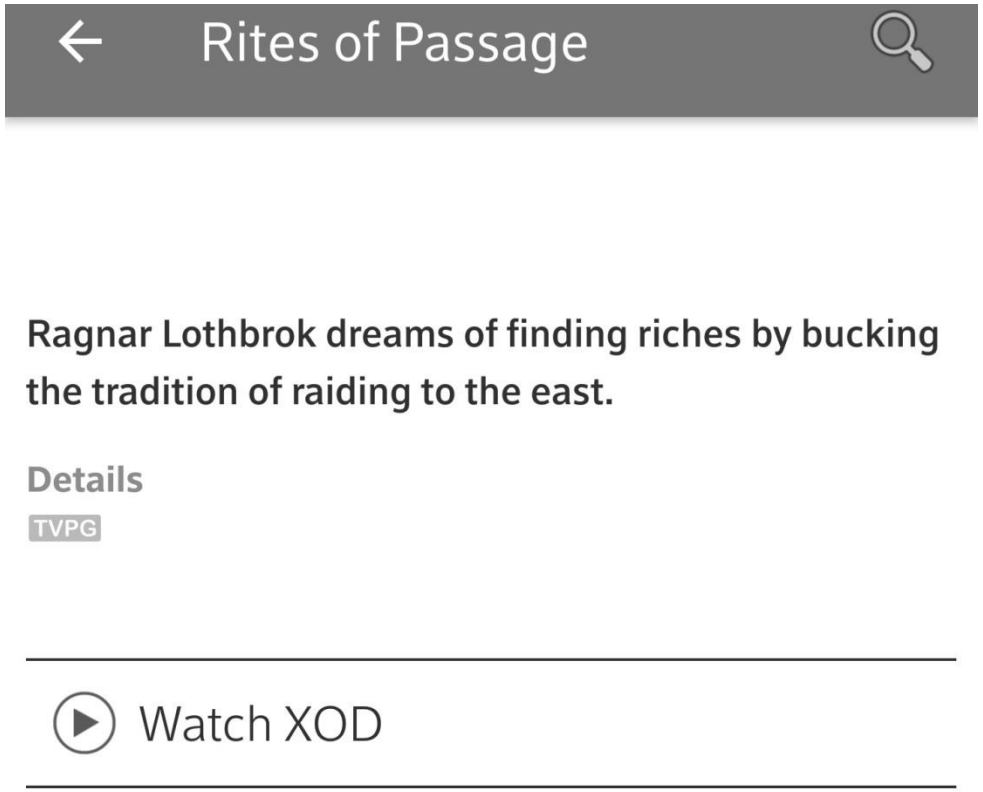
U.S. Patent No. 8,356,251	XFINITY X1 Platform
	 Screenshot of TV Remote app selecting DVR recorded content.

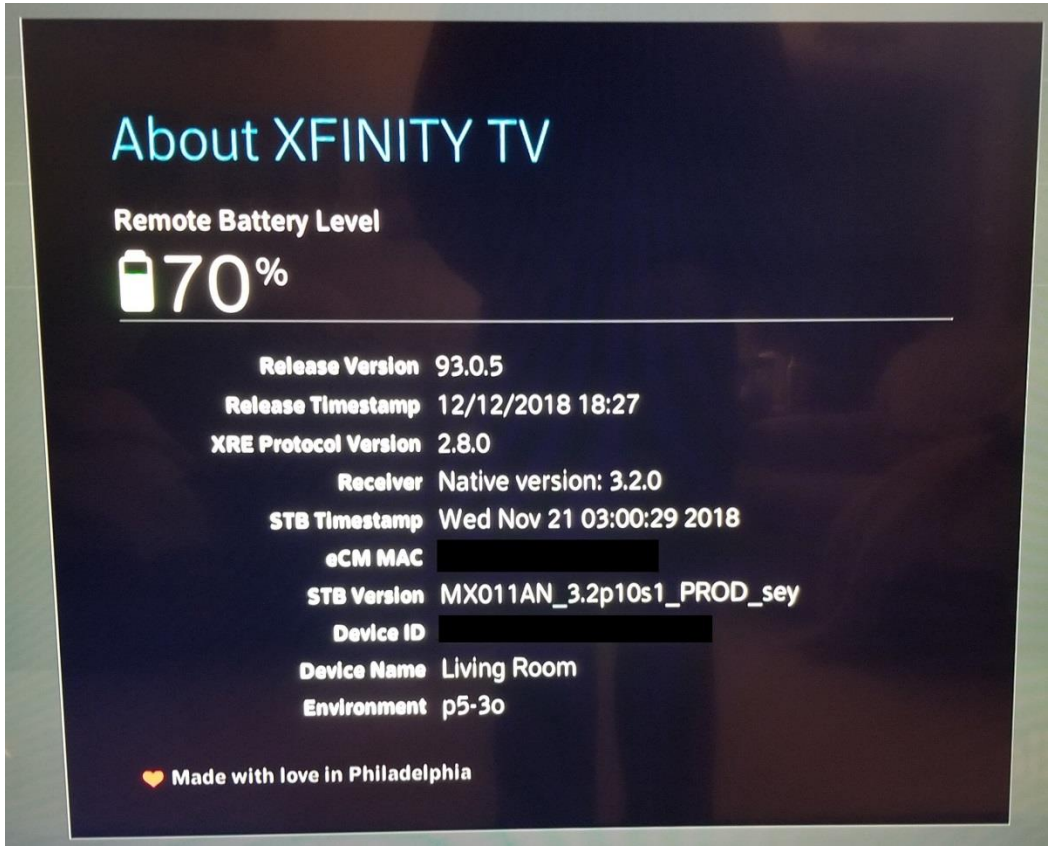
U.S. Patent No. 8,356,251	XFINITY X1 Platform
	 Screenshot of TV Remote app selecting live TV content.

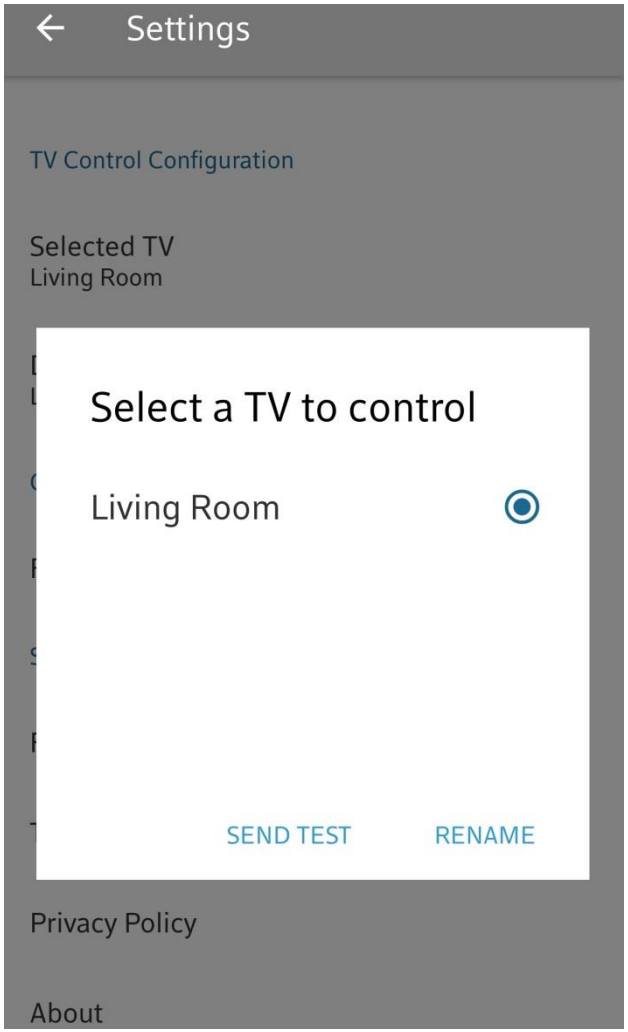
U.S. Patent No. 8,356,251	XFINITY X1 Platform
	 Screenshot of TV Remote app selecting video on-demand content.

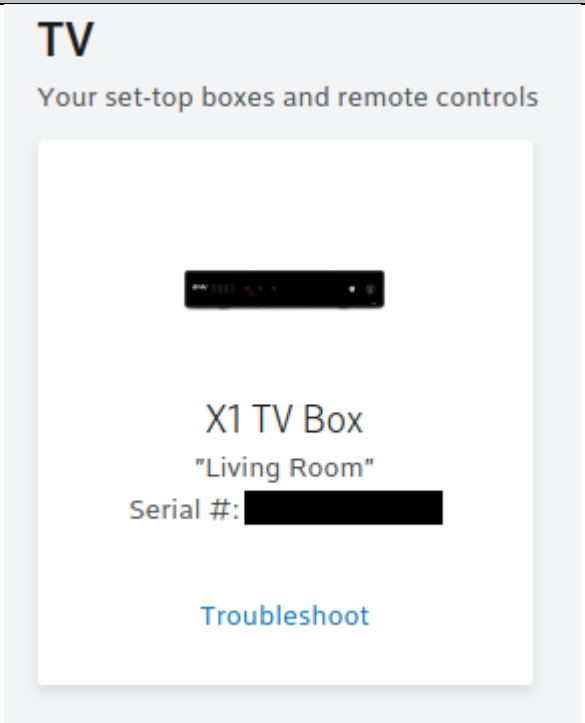
U.S. Patent No. 8,356,251	XFINITY X1 Platform
	

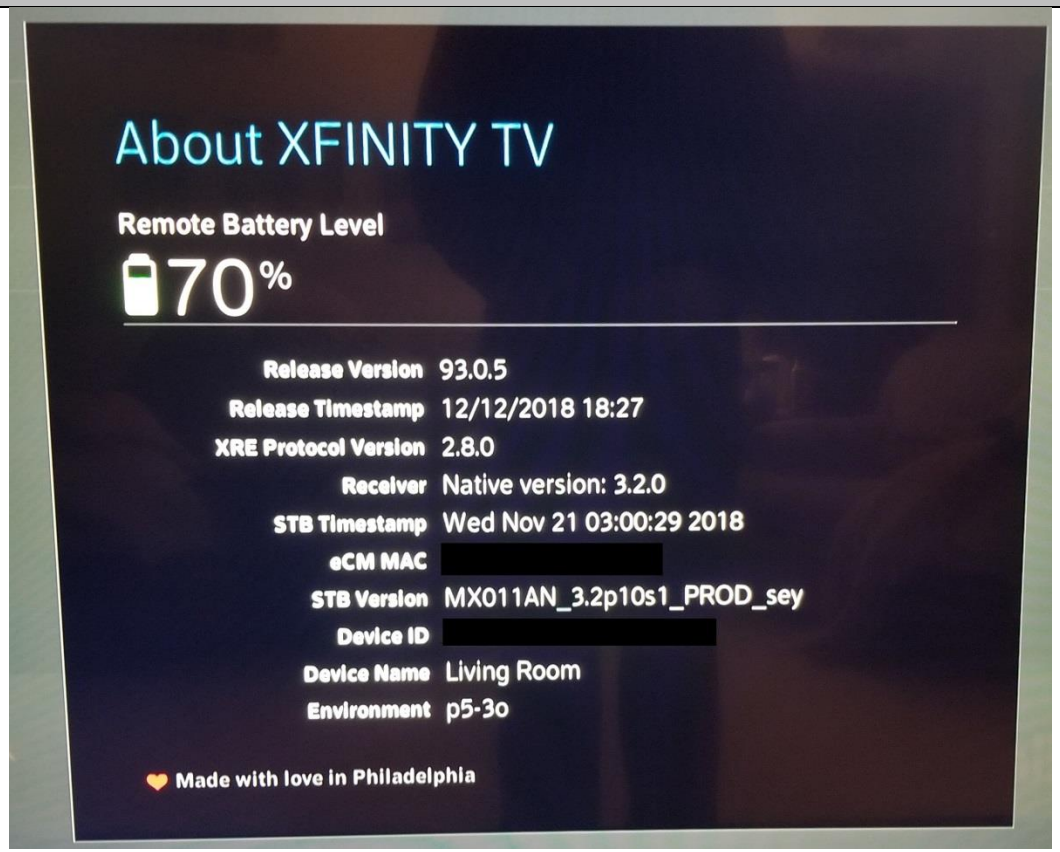
U.S. Patent No. 8,356,251	**XFINITY X1 Platform**
	Screenshot of TV Remote app highlighting remote control function. 

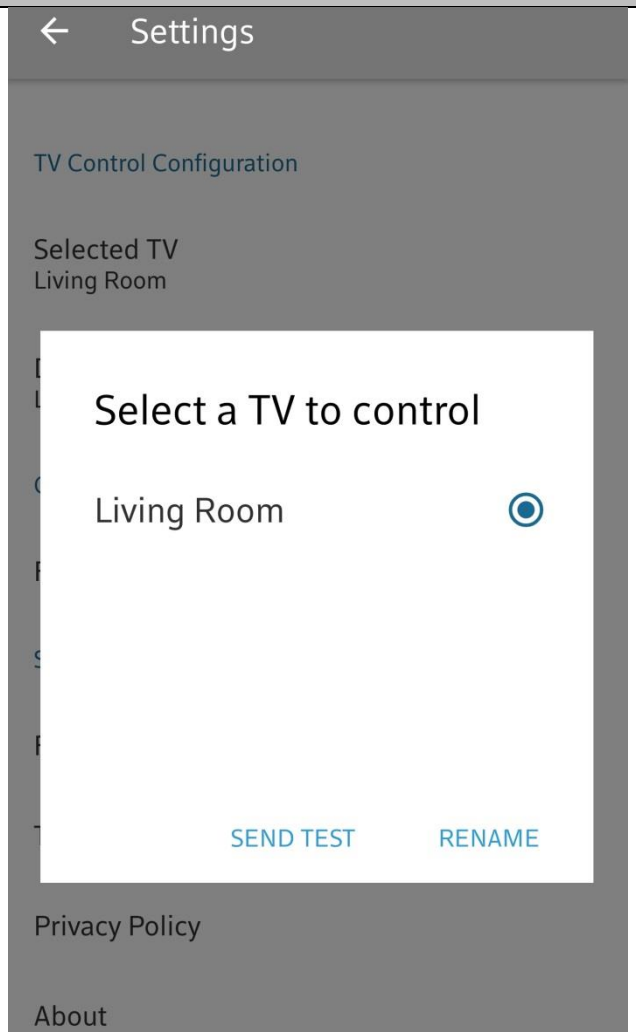
U.S. Patent No. 8,356,251	**XFINITY X1 Platform**
	Screenshot of TV Remote app remote control functions including menu/navigation, rewind, play/pause, and fast forward.
7. The method of claim 1 wherein the video content is streaming media.	On information and belief, XFINITY performs the method of claim 1 wherein the video content is streaming media. For instance, the identified content may be Video On-Demand.  Screenshot of TV Remote app selecting video on-demand content.

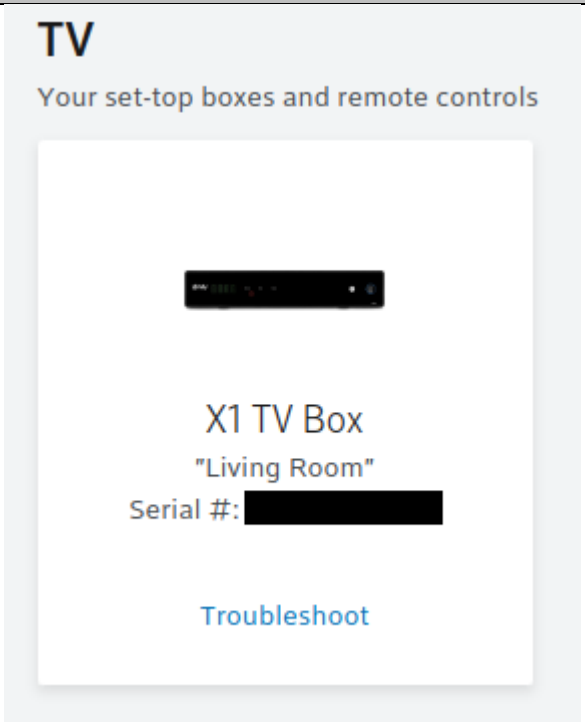
U.S. Patent No. 8,356,251	**XFINITY X1 Platform**
8. The method of claim 1 wherein the synchronization code is uniquely associated with the display device on which the video content is to be played.	XFINITY performs the method of claim 1 wherein the synchronization code is uniquely associated with the display device on which the video content is to be played. For instance, the X1 STB features a Device ID which uniquely identifies the equipment. Additionally, X1 STBs are assigned a Device Name, such as "Living Room", which are presented to users of XFINITY's TV Remote application and used to identify a particular device on the user's home network. STBs are also assigned an IP address, and MAC address.  Screenshot of X1 STB "About" screen.

U.S. Patent No. 8,356,251	**XFINITY X1 Platform**
	 Screenshot of TV Remote app selected equipment screen.

U.S. Patent No. 8,356,251	**XFINITY X1 Platform**
	 https://customer.xfinity.com/#/devices
9. The method of claim 8 wherein the synchronization code is different from an IP address associated with the display device and is different from a MAC address associated with the display device.	XFINITY performs the method of claim 8 wherein the synchronization code is different from an IP address associated with the display device and is different from a MAC address associated with the display device. For instance, the X1 STB features a Device ID which is different from an IP address or MAC address. Additionally, X1 STBs are assigned a Device Name, such as "Living Room", which is different from an IP address or MAC address.

U.S. Patent No. 8,356,251	XFINITY X1 Platform
	 Screenshot of X1 STB “About” screen.

U.S. Patent No. 8,356,251	**XFINITY X1 Platform**
	 Screenshot of TV Remote app selected equipment screen.

U.S. Patent No. 8,356,251	**XFINITY X1 Platform**
	 https://customer.xfinity.com/#/devices