IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE PATENT TRIAL AND APPEAL BOARD

In re *Inter Partes* Review of:
U.S. Patent No. 8,050,652

For: METHOD AND DEVICE FOR AN INTERNET RADIO CAPABLE OF OBTAINING PLAYLIST CONTENT FROM A CONTENT SERVER

DECLARATION OF KEVIN JEFFAY, PH.D.

Mail Stop PATENT BOARD
Patent Trial and Appeal Board
US Patent and Trademark Office
PO Box 1450
Alexandria, Virginia 22313-1450

I, Kevin Jeffay, hereby declare and state as follows:

1. I have been retained as a technical consultant on behalf of Samsung Electronics Co., Ltd., the petitioner in the present proceeding, and I am being compensated at my usual and customary hourly rate. The petition names Samsung Electronics Co., Ltd., Samsung Electronics America, Inc., and Samsung Telecommunications America, LLC as real parties-in-interest. I have no financial interest in, or affiliation with, the petitioner, real parties-in-interest, or the patent owner, which I understand to be BLACK HILLS

MEDIA, LLC. My compensation is not dependent upon the outcome of, or my testimony in, the present *inter partes* review or any litigation proceedings.

2. I have reviewed each of the following:

   a. U.S. Patent No. 8,050,652 ("the '652 Patent"), including the claims, description and prosecution history (which is identified in the Petition respectively as Exhibits 1001 and 1002);

   b. U.S. Patent No. 7,187,947 to White, et al. (which is identified in the Petition as Exhibit 1003; hereinafter "White");

   c. U.S. Patent No. 6,199,076 to Logan, et al. (which is identified in the Petition as Exhibit 1004; hereinafter "Logan");

   d. U.S. Patent No. 7,020,704 to Lipscomb, et al. (which is identified in the Petition as Exhibit 1005; hereinafter "Lipscomb");

   e. U.S. Provisional Patent Application Nos. 60/157,736 (which is identified in the Petition as Exhibit 1006; "the '736 application" or "the '736 app."), 60/176,829 (which is identified in the Petition as Exhibit 1007; "the '829 application" or "the '829 app."), 60/176, 830 (which is identified in the Petition as Exhibit 1008; "the '830 application" or "the '830 app."), 60/176,833 (which is identified in the

Petition as Exhibit 1009; "the '833 application" or "the '833 app."), 60/177,063 (which is identified in the Petition as Exhibit 1010; "the '063 application" or the "063 app."), 60/177,783 (which is identified in the Petition as Exhibit 1011; "the '783 application" or "the '783 app."), 60/177,867 (which is identified in the Petition as Exhibit 1012; "the '867 application" or "the '867 app."), 60/177,884 (which is identified in the Petition as Exhibit 1013; "the '884 application" or "the '884 app.") (collectively, these provisional applications are referred to as "the Lipscomb provisional applications"); and

f. all references cited below in the state of the art section of this declaration.

3. Upon reviewing the '652 Patent, I understand that a non-provisional application was filed on November 27, 2006 (Appl. No. 11/563,232) ("the '232 application"), which issued as the '652 Patent. I further understand that the '232 application is a continuation of U.S. patent application No. 09/805,470 (filed Mar. 12, 2001) ("the '470 application"), which is a continuation-in-part of U.S. patent application No. 09/096,703 (filed Jun. 12, 1998) ("the '703 application"), and which claims the benefit of U.S.

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provisional application No. 60/246,842 (filed Nov. 8, 2000) ("the '842 provisional application"). The '703 application also claims the benefit of U.S. provisional patent application No. 60/072,127 (filed Jan. 22, 1998) ("the '127 provisional application"). My opinion is that the '652 Patent is not entitled to claim priority to each of these applications. Each of the independent claims of the '652 Patent recites a "playlist identifying a plurality of songs." However, playlists identifying a plurality of songs were not disclosed in the chain of applications leading to the '652 Patent until the '842 provisional application, which was filed on November 8, 2000. Accordingly, the earliest possible disclosure of the claims of the '652 Patent is November 8, 2000.

4. It is my opinion that a person of ordinary skill in the art at the time of the inventions claimed in the '652 Patent would have typically have had at least a B.S. degree in electrical engineering, computer engineering or computer science and approximately two years of professional experience with computer networking and multimedia technologies, or the equivalent. I was a person of skill in this art in November 2000.

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5. My background, qualifications, and experience relevant to the issues in proceeding are summarized below. My curriculum vitae is submitted herewith as Exhibit 1016.

6. I am a tenured professor in the Department of Computer Science at the University of North Carolina at Chapel Hill where I currently hold the position of Gillian T. Cell Distinguished Professor of Computer Science.

7. I have a Ph.D. in computer science from the University of Washington, a M.Sc. degree in computer science from the University of Toronto, and a B.S. degree with Highest Distinction in mathematics from the University of Illinois at Urbana-Champaign.

8. I have been involved in the research and development of computing systems for over 30 years. I have been a faculty member at the University of North Carolina since 1989 where I perform research and I teach in the areas of operating systems, distributed systems, real-time and embedded systems, computer networking, multimedia computing and networking, and network management, among others. I consider myself an expert in these areas as well as others.

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9. I have authored or co-authored over 100 articles in peer-reviewed journals, conference proceedings, texts, and monographs in the aforementioned areas of computer science and others. I am currently an Associate Editor for the Journal Real-Time Systems and have previously served as the Editor-in-Chief for the Journal Multimedia Systems. In addition, I have edited and co-edited numerous published proceedings of technical conferences and have edited a book of readings in multimedia computing and networking (with Hong-Jiang Zhang) published by Morgan Kaufman. I am a co-author (with Long Le and F. Donelson Smith) of a monograph related to computer network protocols, and a co- author (with Jay Aikat and F. Donelson Smith) of a second monograph related to experimental computer networking. A complete listing of all my publications can be found in Exhibit 1016.

10. I have served on numerous proposal review panels for the National Science Foundation and other international funding agencies in the aforementioned areas of computer science. I have served as a program chair or member of the technical program committee for over 100 professional, international, and technical conferences, workshops, and symposia. In particular, I have served as either the Program Chair or General Chair for all of the major international

technical conferences, workshops, and symposia in the multimedia computing and networking field.

11. I have worked for, and had research collaborations with, companies such as Cisco Systems, CloudShield, VMware, Lucent, AT&T, Cabletron/Aprisma, IBM, Dell, Sun, Intel, DEC, and Hewlett Packard, among others.

12. In my research and teaching I have considered problems of the design and implementation of distributed computer systems and services including computer networks, operating systems, and network communication protocols. For example, in the early 1990s, I led a team to develop operating systems and communication protocols for transmitting streams of live audio and video over the Internet and to store and process such streams. Part of this work involved the construction of distributed shared workspaces and desktop videoconferencing systems using digital audio and video. My group built and demonstrated some of the first Internet telephony systems (systems that would later come to be known as voice-over-IP or "VoIP" systems). Much of this work was performed jointly with industry. For example, my research group collaborated with, and at times was funded by, companies such as Intel, IBM,

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DEC (now HP), Cabletron (now Enterasys), Cisco, and AT&T Bell Laboratories (now Alcatel-Lucent).

13. In 1994, WXYC, the student-run radio station at the University of North Carolina at Chapel Hill, became the first radio station in the world to rebroadcast its programming live over the Internet using the freely available CU-SeeMe audio and videoconferencing software. Members of my research group served as informal consultants to this project.

14. In 1996 I was hired by SOFTBANK Inc. to develop courses in multimedia networking for use in a professional continuing education program as part of the INTEROP family of networking conferences. The project included developing a series of lectures on multicasting and streaming audio and video content over the Internet. I later developed undergraduate and graduate level courses in networking and multimedia networking at the University of North Carolina at Chapel Hill.

15. In the mid to late 1990s my research group participated in the MBONE (Multicast Backbone) research initiative and regularly used the MBONE to watch and listen to live programming streamed over the Internet.

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16. From 1976-1981 I was a FCC licensed radio engineer and worked at a community FM radio station where I developed playlists for certain radio programs and hosted several live radio programs.

17. I have served as an expert witness and technical consultant in litigation matters concerning distributed systems, operating systems, multimedia networking, computer networks, cellular and wireline telephony, embedded systems and embedded software, real-time systems, among others. This work has been performed on behalf of entities such as HTC Corp., Pioneer Electronics, Alpine Electronics, Verizon, Lucent, Motorola, AT&T, Nortel Networks, Cisco Systems, Google, Yahoo!, Microsoft, Green Hills Software, Akamai Technologies, Dell, and Cox Communications, among others. I have testified in several trials, arbitrations, and claim construction hearings as an expert witness. A complete listing of my testimony either by deposition or at trial within the last four years can be found in Exhibit 1016.

State of the Art Through November 2000

18. The concept of using a "playlist" to represent a list of songs or audio files so that users could select, play, and manipulate various songs was well known in the art by the mid to late 1990s. For example, playlists have been the subject

of U.S. patents since at least 1989. In the early 1990s, companies such as Microsoft, Apple, and Borland, among others, were designing graphical user interfaces (GUIs) to allow users to select and play music transmitted, for example, from a central database in a network.

19. For example, U.S. Patent No. 5,168,481 to Culbertson, et al. is attached as Exhibit 1017 to the Petition. Culbertson shows that in the context of radio broadcast stations, it was known to compile a scheduled playlist from various music selections and pre-recorded materials having known durations or runtimes. *See, e.g.*, Ex. 1017, 1:15-18. Culbertson sought to provide "an automated digital broadcast system which is capable of reliable operation for long periods of time without human assistance." *See, e.g.*, *id.* 1:44-51. In one embodiment, Culbertson describes using compact disc players to "sequentially play a predetermined list of musical selections and commercial or informational messages." *See, e.g.*, *id.* 1:50-51. Culbertson also taught using a display device to display "a portion of the information contained in the playlist to allow an operator to obtain information about the music or commercial selection being played as well as those selections that will be played subsequently." *See, e.g.*, *id.* 2:51-55. Culbertson further disclosed that

audio playback of the musical selections from the playlist could be started and stopped according to a schedule. *See id.* 1:53-60.

20. U.S. Patent No. 5,616,876 to Cluts is attached as Exhibit 1018 to the Petition. Cluts describes a system implemented in an interactive network that would allow consumers to select "playlists" in the form of a predetermined collection of songs, and thereafter review the contents of the playlists, select songs in the playlist, build and create playlists, and display general information associated with the currently playing album or song. Ex. 1018, 4:38-54, 11:40-43, 12:55-65, 13:24-27, 13:50-62, 15:14-25.

21. The implementation and use of playlists through a GUI on a PC to allow users to select and play music transmitted from a database over a network was also well known before 1999. *See, e.g.*, Ex. 1019 ("Nielsen"), pp. 414-417. Among other things, in the designs presented by Nielsen a user would be able to select songs, make multiple selections of songs for a particular time interval, (*e.g.*, 45 minutes of music), select random songs in a selected genre (by singer, musician, or style of music), and manipulate the selected songs to pause, fast forward, skip, and rewind. *See, e.g.*, *id.*

22. According to Nielsen, the Home Fiber Optic Music System included various features, such as providing a "player view" that mimics a CD player and a "song list view." *See, e.g.*, Ex. 1019, 416. Music could be played from two types of objects: a personal CD object and a Catalog object; and the catalog object supported "query" and "history lists" in the song list view. *See, e.g.*, *id.*

23. Similarly, generally available materials taught the typical user how to use commonly available tools to compile playlists through a GUI on a PC and play music transmitted over a network. *See, e.g.*, Ex. 1020 ("Hacker"). Hacker explains, "One of the most enjoyable aspects of working with MP3 players is the fact that they let you create custom 'playlists,' which are simply lists of audio files living anywhere on your system and grouped together under a single name. . . . Behind the scenes, a playlist is just a plan text file naming the full paths to the selected songs. When viewed through the MP3 player's interface, playlists are often attractive and highly customizable entities that let you rearrange, sort, and skip around through vast collections with ease. Playlists for players that can handle streaming or broadcast MP3 can also store URLs to your favorite broadcast sites." *Id.* 56.

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24. Thus, as of 1999-2000, the concept of implementing playlists on a network-enabled audio device to select, manage, and manipulate audio content such as songs was well known in the art.

25. By the late 1990s, companies existed that marketed software designed to enable real-time streaming of at least audio. *See, e.g.*, Ex. 1020, 13-14. Thus, by 2000, installing freely available software on one's laptop or PC enabled the device to receive various kinds of audio content, including Internet radio broadcasts. Software to listen to Internet radio broadcasts has existed ever since Internet radio broadcast began. Accordingly, as made clear by the above discussion of the state of the art, and the discussion of the prior art below, by November 2000, it is my opinion the purported inventions of the '652 patent were well known.

Overview of the '652 Patent

26. The '652 patent discloses a network-enabled audio device or player for listening to a variety of audio sources. Ex. 1001, 2:16-19. In an Internet radio mode, the player receives and plays a broadcast from an Internet radio station. *Id.* 10:3-12, 10:49-57. The player can include Internet Personal Audio Network ("IPAN") client software, and a PC client that is in communication

with the network-enabled audio device may be used to add songs or URLs corresponding to songs to a playlist on the network-enabled audio device. Ex. 1001, 16:29-37; 21:40-65; 22:9-29 and Figs. 15, 19B. Further, the user can access IPAN software running on a server to assign playlists to the user's different network-enabled audio devices. *Id.* 22:36-48.

27. Additionally, the IPAN software can identify and check whether certain songs on the playlist of the network-enabled audio device are missing on that device. Ex. 1001, 28:20-30. If the IPAN software determines that another device accessible to the user has one or more of the missing songs, then the software provides the URLs where the songs are located to the network-enabled audio device. *Id.* 28:31-34. The network-enabled audio device downloads these missing songs from the URLs provided by the server. *Id.* 28:35-38.

28. Figure 15 of the '652 patent below is a block diagram of the configuration between network-enabled audio devices and a stereo website. Ex. 1001, 6:4-6. Figure 15 illustrates two network-enabled audio devices (1510 and 1520) connected to IPAN server site 1104. *Id.* 21:40-43. Storage spaces (1512 and 1522) of network-enabled audio devices (1510 and 1520) are used to store IPAN software 1526, playlist (1528 or 1530), and associate URLs and songs

within the playlist. *Id.* 21:43-57. Server site 1104 includes IPAN software 1433 and playlists (1528 and 1530). *Id.* 21:52-57.

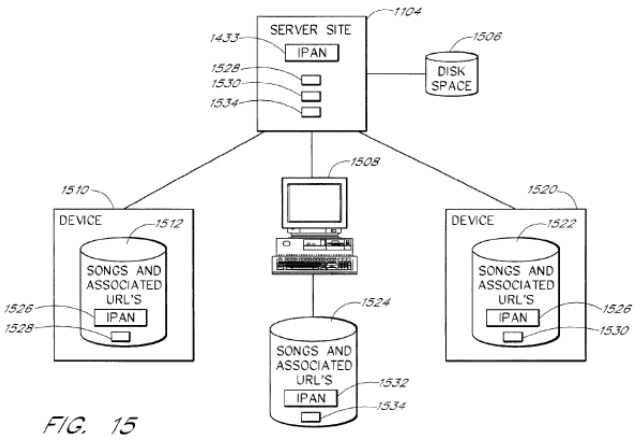


FIG. 15

29. Figure 19B from the '652 patent, below, shows the process for assigning a playlist to a device. Ex. 1001, 6:60-61. At step 1906, a user assigns a playlist to a first device 1510. *Id.* 28:14-16, Fig. 19B. The system determines whether all of the songs on the playlist are stored on the hard drive of the first device 1510. *Id.* 28:20-22. If any (or all) of the songs are missing from the first device 1510, IPAN 1433 forms a list of the remaining songs and checks the hard drive of second device 1520 to determine if any of the remaining songs may be found on that device. *Id.* 28:24-30. In an embodiment, if any of the remaining songs are found on second device 1520, then IPAN 1433 will

provide first device 1510 with URLs for those songs, and first device 1510 will attempt to download the songs from second device 1520. *Id.* 28:30-43.

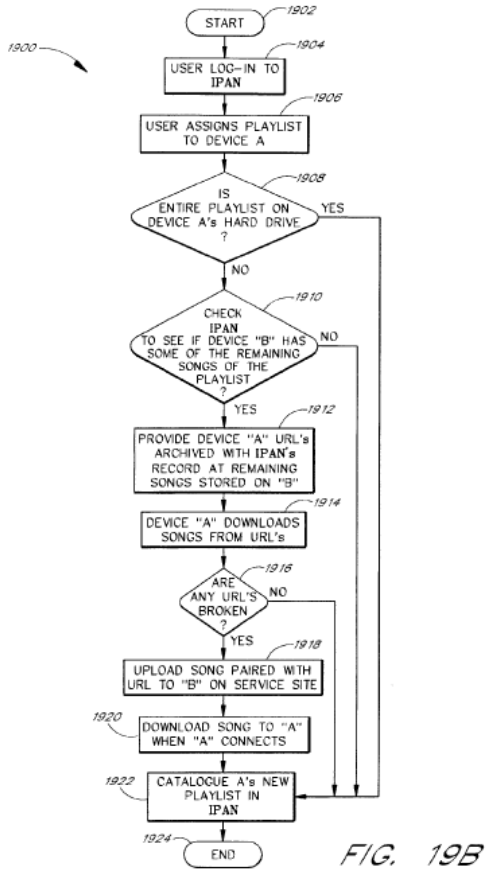


FIG. 19B

Claim Construction

30. I understand that in the present proceeding, claim terms are interpreted as the broadest reasonable construction consistent with the specification or "BRC."

31. I understand that the Board, in IPR2013-00594, construed "playlist" and "playlist assigned to the electronic device," as recited in claims 1 and 42, to

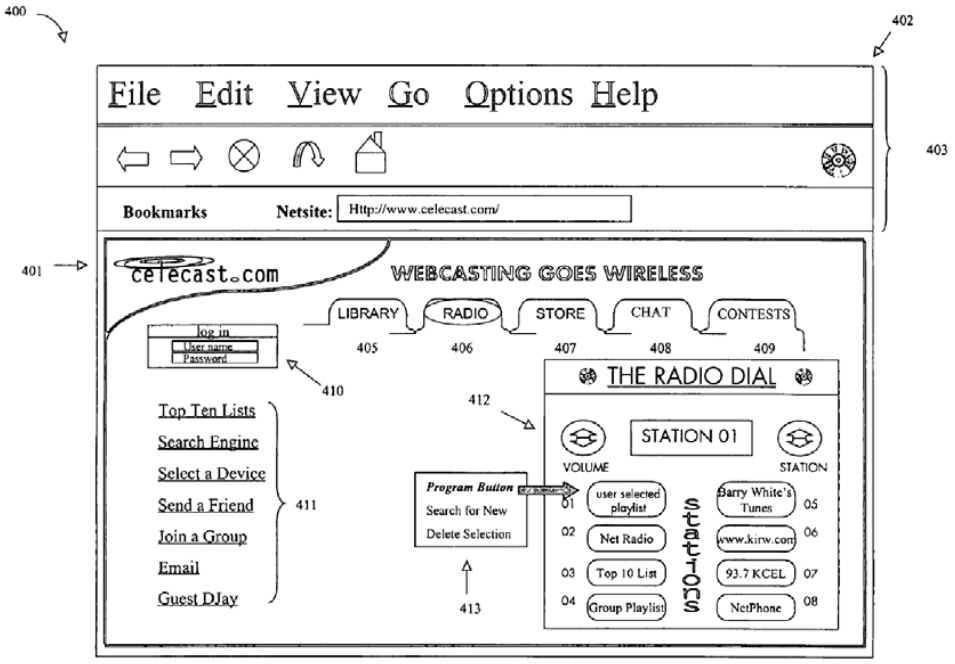
respectively mean "a list of audio files or URLs of where the audio files were retrieved from" and "a list of audio files or URLs of where the audio files were retrieved from directed to a particular device selected by a user." Ex. 1014, pp. 11-13. For the purposes of the present proceeding, I have assumed that these constructions should continue to apply to the meanings of these terms.

32. It also my opinion that the URLs in a "playlist" are not limited to "URLs of where the audio files were retrieved from." The specification of the '652 patent states that "[w]ithin the playlist, the URL's indicate the location from which the audio files associated with the song titles in the playlist *can be* downloaded." Ex. 1001, 22:48-50 (emphasis added).

33. I understand that the Board, in IPR2013-00594, construed the phrase "wherein ones of the plurality of songs are not stored on the electronic device" in claims 1 and 42 to mean "wherein at least one of the plurality of songs is not stored on the electronic device." Ex. 1014, pp. 13-14. I have assumed that, for the purposes of the present proceeding, this construction should apply to the meaning of this term in the current Petition as well.

The White Patent

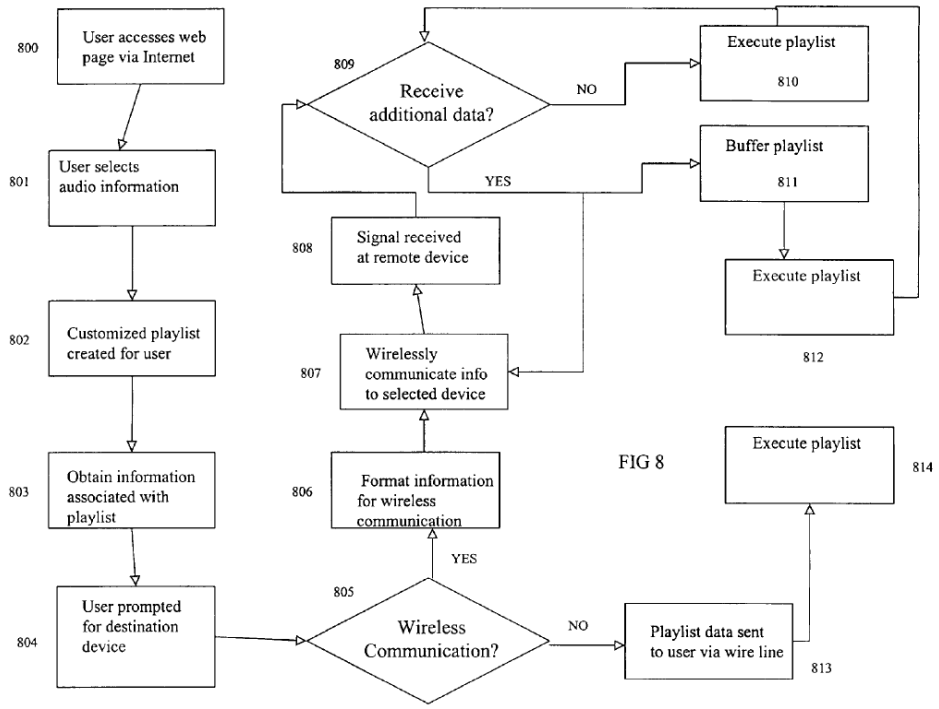
34. White is directed to a system and method for communicating selected information to an electronic device. Ex. 1003, Abstract. Selected information includes "audio information such as songs, on-line radio stations, on-line broadcasts, streaming audio, or other selectable information." *Id.* 3:59-61. White discloses "allow[ing] a radio listener to create a personal playlist and to listen to this playlist in a wireless atmosphere while enjoying CD quality sound." *Id.* 2:7-10. White's Figure 4 is reproduced below:



35. Figure 4 shows graphical user interface 400 for displaying selectable audio information. Ex. 1003, 11:6-15. Interface 400 may be displayed as a web page.

Id. This interface allows users to view radio dial 412 or "a current playlist selected by the user or the status of [a] wirelessly communicated playlist." *Id.* 11:26-33. Program interface 413 is used to specify items to be displayed by radio dial 412. *Id.* 12:29-30. These items may include Internet and broadcast radio stations or playlists. *Id.* 12:30-36.

36. Figure 8 of White is reproduced below:



37. Figure 8 depicts a method for providing selected audio information to an electronic device. Ex. 1003, 3:40-42. At step 800, the user accesses a web page such as the home page shown in Figure 4. *Id.* 15:64-67. Then at step 801,

the user selects "a single song, a plurality [of] different songs, an entire album, a broadcast station, streaming audio, etc. or other selectable audio information." *Id.* 16:3-6. A playlist is created at step 802 reflecting the user's audio selections. *Id.* 16:6-9. In certain embodiments, the playlist may be composed of songs selected by a friend or group of friends. *Id.* 17:56-18:19. A list of information is compiled at step 803 including information associated with the playlist, such as network or URL locations for the selected audio information. *Id.* 16:12-14. At step 804, the user then selects a device such as "a[n] automobile audio system, a home stereo system, a home computer, an electronic device coupled to a home network or computer system, etc.[,] or other locations or devices operable to receive the selected audio information." *Id.* 16:24-28. The playlist and associated information are communicated to the electronic device via a wireless (step 806) or wired (step 813) connection. *Id.* 16:35-45. Once the information is communicated to the electronic device, the user may execute the playlist (steps 812, 814). *Id.* 17:7-18.

38. White's electronic device "may be integrated into an audio component such as a radio receiver" or "coupled to a home audio system, a portable radio system or other system thereby providing a versatile electronic device operable to receive wirelessly communicated selected audio information." Ex. 1003, 9:53-

57; 10:38-42. In certain embodiments, White's electronic device may be coupled to an optical disc player such as a CD player or "storage medium 303 such as a high speed buffer, programmable memory, or other devices operable to store information." *Id.* 18:46-50; 8:46-52; 8:67-9:5.

39. White thus discloses at least the following elements of claims 1 and 42 of the '652 patent: an Internet radio mode of operation (Ex. 1003, 3:59-61 and 2:7-10); a playlist mode of operation (*id.* Fig. 8 elements 813, 807, 808; 16:3-4); assigning a playlist to a player device, where some of the songs are not stored on the player device. (*id.* 15:62-16:34; Fig. 4; 11:66-12:7; Fig. 8; 17:32-35); a control system for carrying out the functionality of its player device (*id.* 8:52-62; 12:38-54; Figs. 3-4); and receiving information from a central system enabling the player to obtain missing songs from a remote source (*id.* 16:11-19).

40. White further discloses enabling playback from an optical disc, relating to claims 3 and 44 of the '652 patent (Ex. 1003, 18:46-53); enabling playback from a data storage device, relating to claims 4 and 45 of the '652 patent (*id.* 13:18-26; 8:46-52; 8:67-9:5); displaying a list of Internet radio broadcast stations, relating to claims 6 and 47 of the '652 patent (*id.* 12:30-37; Fig. 4,

element 412); a wireless transceiver that is coupled to a control system, relating to claims 7 and 48 of the '652 patent (*id.* 9:6-14); at least one speaker that is part of White's system, relating to claims 10 and 52 of the '652 patent (*id.* claim 17); and receiving and displaying a recommended song, relating to claims 13 and 55 of the '652 patent (*id.* 17:56-18:19; 15:62-16:6).

41. Consistent with the broadest reasonable construction standard and customary usage in the 1999-2000 time frame, a person of skill in the art would understand the Internet website disclosed in White (Ex. 1003, 10:20-26) teaches the central system of the electronic device of claim 1.

The Logan Patent

42. Logan discloses an information distribution system that allows player devices to play back audio program segments, such as music. Ex. 1004, 2:6-43, 5:60-65. The audio player device can be a conventional laptop or desktop computer. *See, e.g.*, *id.* 4:33-41. The audio player plays back the audio program segment files in accordance with a schedule file, which is created in the first instance by a host server, which develops and periodically transmits the schedule file to the player. *Id.* 2:47-50, 7:1-13. The schedule file consists of a sequence of program segment identification numbers, which determines

the sequence of events that occur during playback. *Id.* 7:1-13, 8:39-41, 12:3-15, 17:59-61 and Fig. 4.

43. Figure 1 of Logan, which presents schematic diagrams of host server 101 and player 103, is provided below.

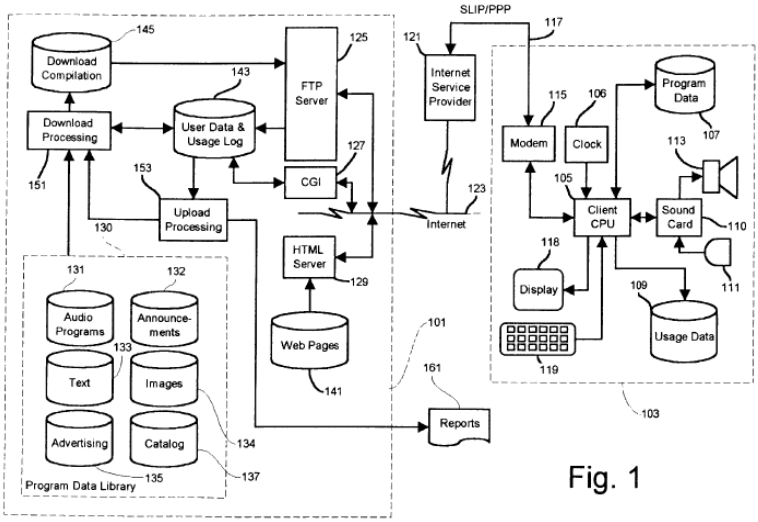


Fig. 1

44. Logan discloses that the player, after obtaining the schedule file, issues download requests to the host server for program segments which are not already in the player's local storage. Ex. 1004, 7:4-13. In embodiments, the player only requests transfer of program segments not already present in local storage. *Id.* 19:4-8. The download operation preferably occurs at a time established by the player. *Id.* 8:24-29. In the download operation, the player

identifies specific program segments that it wants to download by, for example, designating filenames or program_id values. *Id.* 8:20-38.

45. In particular, the selections made by and uploaded from the subscriber take the form of a file that designates the specific program segments for download to the subscriber's player. Ex. 1004, 7:4-13. This file includes a URL field that specifies the location of the file containing the specific program segment at an FTP server of the host server, or potentially at any other accessible location on the Internet. *Id.* 17:24-67; 18:60-65 and Fig. 1. The player issues FTP download requests from the host server by specifying the URLs of the needed files. *Id.* 19:12-15. Either or both of the host server and another location on the Internet that contains a desired specific program segment are thus "remote sources."

46. The URL specifying the location of the specific program segment for download to the subscriber's player is originally provided to the player as part of a catalog that the host server presents to the subscriber. *Id.* 9:31-45; 9:51-62 and 27:24-29. In particular, Logan discloses that a server subsystem creates a playlist-like session schedule and transmits it to the user's player device. *Id.* 2:44-54; 6:51-55; 12:3-15; 18:60-65. Logan further discloses that

the player device may playback the content corresponding to the playlist-like session schedule. *Id.* 8:54 – 9:10. Thus, relating to claims 1 and 42 of the '652 patent, Logan discloses a playlist mode of operation in which the player device plays back content corresponding to the playlist-like session schedule. *Id*.

47. Logan discloses that the player device is a computer-like device that has a CPU, a display and input devices. Ex. 1004, 4:33-41; 9:64-10:6; Fig. 1. Logan further discloses that the player device has a user interface for controlling its functionalities. *Id*. 8:57 – 9:4. Thus, relating to claim 1 of the '652 patent, Logan discloses a control system.

48. Logan discloses that in certain situations, the user's player device will request only those songs not already present on the player device. *Id*. 7:4-13; 19:4-8; 14:53-15:20. Thus, relating to claims 1 and 42 of the '652 patent, Logan discloses receiving a playlist identifying a plurality of songs, wherein some of the songs of the playlist are not stored on the player.

49. To begin a download operation, the player identifies specific program segments that it wants to download by, for example, designating filenames or program_id values. Ex. 1004, 8:20-38. In particular, the selections made by

the subscriber or user and uploaded from the player take the form of a file that designates the specific program segments for download to the subscriber's player. *Id.* 17:5-14. This file includes a URL field that specifies the location of the file containing the specific program segment at an FTP server of the host server, or potentially at any other accessible location on the Internet. *Id.* 17:24-67; 18:60-65 and Fig. 1. The player issues FTP download requests from the host server by specifying the URLs of the needed files. *Id.* 19:12-15. Either or both of the host server and another location on the Internet that contains a desired specific program segment discloses the recited "remote source." The URL specifying the location of the specific program segment for download to the subscriber's player is originally provided to the player as part of a catalog that the host server presents to the subscriber. *Id.* 9:31-45, 9:51-62 and 27:24-29. Thus, relating to claims 1 and 42 of the '652 patent, Logan discloses receiving information from a central system enabling the player to obtain missing songs from a remote source.

50. Logan discloses that a player device includes data storage devices such as high speed RAM storage and persistent mass storage for storing audio, text and image data, and that the audio recordings stored therein can be converted into audio form. Ex. 1004, 4:33-41; 4:46-50. Thus, relating to claims 4 and

45 of the '652 patent, Logan discloses enabling playback from a data storage device.

51. Logan discloses that the player may connect to the host (server) device using a wireless link. Ex. 1004, 7:44-57. Thus, relating to claims 7 and 48 of the '652 patent, Logan discloses a wireless transceiver that is coupled to Logan's control system.

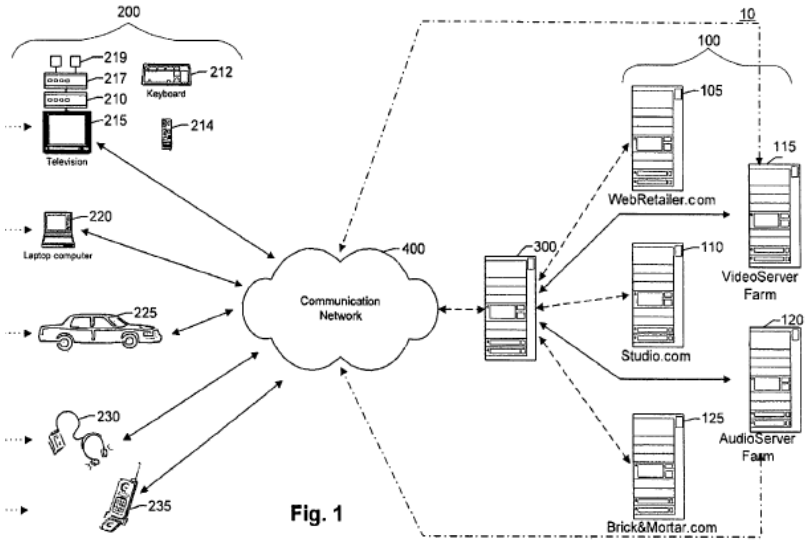
52. Logan discloses that player device is adopted for connection to a speaker device. Ex. 1004, 4:41-46. Thus, relating to claims 10 and 52 of the '652 patent, Logan discloses at least one speaker that is part of the system disclosed by Logan.

The Lipscomb Patent

53. I have reviewed both the Lipscomb patent and the Lipscomb provisional applications it claims priority to. As explained below, it is my opinion that a person skilled in the art would understand that each of the relevant portions of the Lipscomb patent are disclosed in its provisional applications, thus entitling it to priority date no later than January 24, 2000.

54. Lipscomb discloses a portal or server for distributing multimedia assets to media player devices and allowing access to those multimedia assets by the

devices. Ex. 1005, 1:33-42. *See also* '736 app., pp. 1-2. Further, the portal may connect to the media player device to provide content. Ex. 1005, 3:48-4:11. *See also* '736 app., pp. 2-3.



55. Lipscomb discloses that the portal may provide media player devices with access to streaming Internet radio providers. Ex. 1005, 3:19-21. *See also* '829 app., p. 11; '063 app., p. 16. Further, Lipscomb discloses that the user can edit a list of streaming digital radio channels on the media player device. Ex. 1005, 8:41-45. *See also* '063 app., p.18; '829 app., p. 11 (disclosing "[a]ccess to thousands of Internet radio sites"). Thus, relating to claims 1 and 42 of the '652 patent, Lipscomb discloses an Internet radio mode of operation.

56. Lipscomb discloses that a portal may be used to create, edit or delete a playlist of assets. Ex. 1005, 4:33-36; *see also, e.g.,* '063 app., pp. 10-11. Such a playlist may be created from a master database, and incorporated into the media player device. Ex. 1005, 9:47-61; *see also* '063 app., pp. 20-21. In local playback mode, the media player device plays back assets stored locally. Ex. 1005, 8:16-21; *see also* '063 app., p. 15. Thus, relating to claims 1 and 42 of the '652 patent, Lipscomb discloses a playlist mode of operation.

57. The '830 application also discloses that ZapCentral is a portal that can be accessed from ZapStation clients on the web. '830 app., p. 4. The '830 application discloses that ZapCentral can be used to add/edit/delete playlists, and that a replica of the database should reside on the ZapStation or ZapJukebox software. *Id.* p. 7. Thus, relating to claim 1 of the '652 patent, Lipscomb discloses assigning a playlist to a player device.

58. Lipscomb discloses that its media player device includes software controlling its functionality and user-interface components. Ex. 1005, 5:49-64, 6:4-17 and 6:55-60. *See also* '736 app., pp. 1-2. Thus, relating to claim 1 of the '652 patent, Lipscomb discloses a control system.

59. Lipscomb discloses synchronization of multimedia databases across the user's different software platforms and appliances. Ex. 1005, 10:25-42. The '830 application discloses that a replica of the database should reside on the ZapStation or ZapJukebox software. '830 app., p. 7. The '063 application discloses that music or video that exists on one user's device can be synchronized or replicated on other authorized devices. '063 app., p. 12. Thus, relating to claims 1 and 42 of the '652 application, Lipscomb discloses receiving a playlist identifying a plurality of songs, wherein some of the songs of the playlist are not stored on the player.

60. Lipscomb discloses that a playlist may include a URL reference. Ex. 1005, 8:33-38. *See also* '063 app., p. 16. Additionally, Lipscomb describes other embodiments, such as one in which the media player device is connected to a server and can access content from that and any other server in the network. Ex. 1005, 8:22-31. *See also* '063 app., pp. 15-16. Thus, relating to claims 1 and 42 of the '652 patent, Lipscomb discloses receiving information from a central system enabling the player to obtain missing songs from a remote source.

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61. Lipscomb also discloses that a media player device may playback CDs and DVDs. Ex. 1005, 6:37-43; 9:9-30. *See also* '829 app., pp. 6-7 (depicting and describing ZapStation device and its DVD player and slot). Thus, relating to claims 3 and 44 of the '652 patent, Lipscomb discloses enabling playback from an optical disc.

62. The portal disclosed in Lipscomb may communicate with media players via a communications network that may consist of the Internet and/or a combination of wireless communication networks, such as cellular networks, PCS networks, etc. Ex. 1005, 3:48-51. *See also* '736 app., pp. 1-2 (the media player device may include wireless devices, such as car-mounted units or other wireless devices). Additionally, the network connecting the media player device to servers may be wireless. *Id.* p. 4. Thus, relating to claims 7 and 48 of the '652 patent, Lipscomb discloses a wireless transceiver that is coupled to Lipscomb's control system.

63. Lipscomb discloses that a media player device may include speakers. Ex. 1005, 2:49-57; 6:25-27. *See also* '829 app., p. 5 (the audio output for the ZapStation is configured to drive speakers). Accordingly, relating to claims

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10 and 52 of the '652 patent, Lipscomb discloses at least one speaker that is part of the system disclosed by Lipscomb.

64. Lipscomb additionally discloses, among other things, CD recognition functionality in which the media player device obtains information regarding a CD being played on the device from a server on the Internet and displays information about the CD during playback. Ex. 1005, 9:10-38. *See also* '063 app., p. 20; '833 application, p. 8 (depicting ZapStation device that displays, for example, information in connection with the playing song, including the title of the song). Thus, relating to claim 11 of the '652 patent, Lipscomb discloses obtaining and presenting supplemental information relating to a song in real time to the user of the player. Lipscomb discloses that the supplemental track and title information is requested automatically. A person skilled in the art would understand that this request could be made at any time while a song is playing. A person skilled in the art would also understand that this request would occur in "real-time" when the first song is playing, because it was well-known at the time for computers to auto-play the first song in a disk.

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65. Lipscomb further discloses that a user may send a multimedia asset (for example, a song) to another person, who may not have a multimedia client player. Ex. 1005, 11:61-12:12. *See also* '736 app., p. 4, para. 1. The other person can download the player of the Lipscomb system and playback the multimedia asset. Ex. 1005, 11:61-12:12. *See also* '736 app., p. 4. During such playback, information on the multimedia asset (e.g., the title of the song) is displayed. '833 application, pp. 8, 11 (respectively depicting ZapStation device that displays, e.g., information in connection with the playing song, including title of the song, and another device running ZapJukebox PC software, which also displays information on song that is playing). Thus, relating to claims 13 and 55 of the '652 patent, Lipscomb discloses receiving and displaying a recommended song.

66. Lipscomb discloses that a media player device adopted for use as a home consumer device may be operated using a remote control device. Ex. 1005, 2:49-67. *See also* '829 app., pp. 5-6. The remote control device may include a standard remote control and a browser interface on a remotely connected computer. *Id*. The user interface can include a playlist that can be edited. Ex. 1005, 9:46-60; *see also* '063 app., pp. 20-21; '833 app., p. 11 (depicting a playlist that can be edited on a personal computer). Thus, relating to claim 49

of the ‘652 patent, Logan discloses a remote control that may be used for user-interface functionalities, such as navigating a playlist.

Obviousness In View Of The White Patent

67. White discloses all of the claimed features of claims 1, 3-4, 6-7, 10, 13, 42, 44-45, 47-48, 50, 52 and 55 of the ’652 patent in different embodiments in the patent. A person skilled in the art would have reason to combine these features because they are disclosed in the same reference and that reference does not teach against combining those features. Moreover, the combination of these features would produce expected results, and would not require undue experimentation.

The Combination Of The Logan and Lipscomb Patents

68. Logan discloses an information distribution system that allows player devices to play back audio program segments, such as music. Ex. 1004, 2:6-43; 5:60-65. The audio player plays back the audio program segment files in accordance with a schedule file, which is created in the first instance by a host server, which develops and periodically transmits a playlist-like schedule file to the player. *Id.* 2:47-50 and 7:1-13. The schedule file consists of a sequence of program segment identification numbers, which determines the

sequence of events that occur during playback. *Id.* 7:1-13; 12:3-15; 17:59-61 and Fig. 4. As also discussed earlier, the host server may identify programming of interest, and the URL where such programming may be found, to the player device. *Id.* 9:31-45; 9:51-62 and 27:24-29. The player device may at a later time ask the host server to obtain this programming from the specified URL. *Id.* 19:12-15.

69. Lipscomb discloses a player device that has substantially similar functionality. For example, Lipscomb player device is for playing back digital media assets such as video and music. Ex. 1004, 2:10-21 and 2:37-48. *See also* '736 app., pp. 1-2; '829 app., p. 11. Further, Lipscomb discloses that a server functioning as portal may provide a URL reference to the player device that allows the player device to obtain desired content from a device specified by the URL. Ex. 1004, 8:22-38. *See also* '063 app., pp. 15-16.

70. Accordingly, a person skilled in the art would have been motivated to combine the features in Lipscomb with the features in Logan given the substantial overlap in functionality and intended use of the devices in both references. Combining Lipscomb and Logan would produce expected results and would not require undue experimentation. In particular, a person skilled

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in the art would have been motivated to add the following features from Lipscomb to Logan's player device:

- Internet radio capability, including listing Internet broadcast stations. Lipscomb, 1:33-42; 3:61-67; *see also* '063 app., p. 13.
- Optical disk playback capability. Lipscomb, 6:39-43; *see also* '829 app., pp. 6-7.
- Requesting, obtaining and presenting to the user supplemental information relating to a song. Lipscomb, 9:10-38; *see also* '063 app., p. 20; '833 app., p. 8.
- Receiving and displaying a recommended song. Lipscomb, 11:61-12:12; *see also* '736 app., p. 4; '833 app., pp. 8-11.
- A wireless remote control for navigating a playlist. Lipscomb, 2:63-65; 9:48-61; *see also* '063 app., pp. 20-21; '833 app., p. 11.

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I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under § 1001 of Title 18 of the United States Code.

Dated: May 8, 2014

Respectfully submitted,

By _____
Kevin Jeffay

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