UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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Electronic Frontier Foundation
Petitioner,

v.

Personal Audio, LLC
Patent Owner

Patent No. 8,112,504 (Claims 31-35)
Issued: Feb. 7, 2012
Filed: Mar. 4, 2009
Inventors: James D. Logan, Daniel F. Goessling, Charles G. Call
Title: SYSTEM FOR DISSEMINATING MEDIA CONTENT REPRESENTING
EPISODES IN A SERIALIZED SEQUENCE

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Inter Partes Review No. _____

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TABLE OF AUTHORITIES

EXHIBIT LIST

Exhibit	Description
1001	U.S. Patent No. 8,112,504
1002	Declaration of Chris Schmandt with Curriculum Vitae
1003	Declaration of Carl Malamud
1004	Personal Audio, LLC, *US Patent Office issues Podcasting Patent to Personal Audio*, Press Release, Feb. 7, 2012
1005	Personal Audio, LLC, *Personal Audio Asserts Podcasting Patent Against Media Companies*, Press Release, Jan. 7, 2013
1006	*Personal Audio, LLC v. Fox Broadcasting Co. et al.*, Complaint For Patent Infringement (E.D. Tex. Aug. 6, 2013)
1007	Markoff, J., *Turning the Desktop PC Into a Talk Radio Medium*, N.Y. TIMES, Mar. 3, 1993, at A1
1008	Hafner, K., *The Man With Ideas*, NEWSWEEK, July 24, 1995
1009	Schwartz, J., *Superhighway Routed Through Capitol Hill; Network Plans to Deliver Sound Bites as Bytes*, WASH. POST, Sept. 19, 1994, at A3
1010	Sandberg, J., *On-Line Internet Expo Will Promote Cyberspace to the Whole Wired World*, WALL ST. J., Mar. 14, 1995, at B6.
1011	Grossman, W., *The Frontier of Broadcasting Radio Programs are Going On-Line*, INT'L HERALD TRIBUNE, Mar. 8, 1995, at 20
1012	Patrick, A. et al, *CBC Radio on the Internet: An Experiment in Convergence*, 21 CANADIAN J. OF COMM'N 1, 125-140, Jan. 1, 1996
1013	*CBC Radio on the Internet: An Experiment in Convergence*, Indexing Metadata, available at www.cjc-online.ca/index.php/journal/rt/metadata/926/832 (last accessed Sept. 21, 2013)
1014	Personal Audio, LLC, *Episodic Content*, available at http://personalaudio.net/patents/episodic-content/ (last accessed Oct. 11, 2013)
1015	U.S. App. No. 12/380,955, now U.S. Patent No. 8,112,504, *Notice of Allowability*, Oct. 24, 2011
1016	*Merriam Webster's Colligiate Dictionary*, Definition of Episode (10th Ed. 1996)
1017	Berners-Lee, T. (Ed.), *Uniform Resource Locators (URLs)*, Network Working Group, Dec. 1994

1018	Andreessen, M., *World Wide Web access to ITR*, posted to alt.radio.internet, Apr. 13, 1993
1019	Browser rendering of HTML web page located at http://www.ncsa.uiuc.edu/ radio/radio.html, as it existed on April 22, 1993, as rendered from the contents of Ex. 1021
1020	*[surfpunk-0080] BUBBBLES: talk radio; _A New Age_; clipper chip*, SURFPUNK TECHNICAL JOURNAL, Apr. 22, 1993.
1021	The HTML file that existed at http://www.ncsa.uiuc.edu/ radio/radio.html, as of April 22, 1993, reproduced from the contents of Ex. 1020
1022	Compton, C., *Internet CNN NEWSROOM: The Design of a Digital Video News Magazine*, Massachusetts Institute of Technology, Aug. 10, 1995
1023	Web page located at http://www.ncsa.uiuc.edu/ radio/radio.html, as it existed on Dec. 20, 1996, available at http://web.archive.org/web/19961220063151/http://www.ncsa. uiuc.edu/radio/radio.html (last accessed Oct. 11, 2013)
1024	Web page located at http://www.cmf.nrl.navy.mil/radio/geek_ITR.html, as it existed on April 18, 1999, available at http://web.archive.org/web/19990418034612/http://www.cmf. nrl.navy.mil/radio/geek_ITR.html (last accessed Oct. 11, 2013)
1025	Savetz, K., *Plug In, Log On, Tune In*, Microtimes, May 31, 1993
1026	Weber, M. H., *Steve Deering, Geek of the Week, April 21, 1993*, posted to alt.internet.talk-radio, Apr. 21, 1993
1027	Weber, M.H., *Brewster Kahle, Geek of the Week, April 27, 1993*, posted to alt.internet.talk-radio, Apr. 27, 1993
1028	Malamud, C., *Weekly "Geek of the Week" Interviews to Air on Internet Talk Radio in March*, Press Release, Mar. 1, 1993, as posted by Cooper, R. to alt.internet.services, Mar. 17, 1993
1029	Vetter, R. et al, *Mosaic and the World Wide Web*, IEEE COMPUTER VOL. 27, NO. 10, 49-57, October 1994
1030	King, L., *Directory Of Electronic Journals, Newsletters And Academic Discussion Lists*, Office of Scientific and Academic Publishing Association of Research Libraries, May, 1994

On behalf of Petitioner Electronic Frontier Foundation ("EFF"), and in accordance with 35 U.S.C. § 311 and 37 C.F.R. § 42.100, *inter partes* review is respectfully requested for claims 31, 32, 33, 34, and 35 of U.S. Patent No. 8,112,504 ("the '504 patent"). The '504 patent is submitted as Exhibit 1001.

I.   Mandatory Notices and Payment of Fees

A.   Certification of Grounds for Standing

Pursuant to 37 C.F.R. § 42.104(a), Petitioner EFF certifies that the '504 patent is eligible for *inter partes* review and that EFF is not barred or estopped from requesting an *inter partes* review challenging '504 patent claims 31-35 on the grounds identified in this petition.

B.   Real Party-In-Interest

Petitioner Electronic Frontier Foundation, located at 815 Eddy Street, San Francisco, CA 94109, is the sole real party in interest.

C.   Related Matters

On information and belief, Personal Audio is asserting the '504 patent against several parties in several United States District Courts. EFF is currently aware of the following related matters under 37 C.F.R. § 42.8(b)(2):

(i)   *Personal Audio, LLC v. CBS Corp.*, 2:13-cv-270 (E.D. Tex. Apr. 11, 2013);

(ii)   *Personal Audio, LLC v. NBCUniversal Media, LLC*, 2:13-cv-271 (E.D. Tex. Apr. 11, 2013);

(iii)   *Personal Audio, LLC v. Ace Broadcasting Network, LLC*, 2:13-cv-14 (E.D. Tex. Jan. 7, 2013);

(iv)   *Personal Audio, LLC v. Howstuffworks.com*, 2:13-cv-15 (E.D. Tex. Apr. 10, 2013);

(v)   *Personal Audio, LLC v. Togi Entertainment, Inc.*, 2:13-cv-13 (E.D. Tex. Jan. 7, 2013);

(vi)   *Fox Networks Group, Inc. v. Personal Audio, LLC*, 1:13-cv-11794 (D. Mass. July 26, 2013); and

(vii)   *Personal Audio, LLC v. Fox Broadcasting Co.*, 2:13-cv-577 (E.D. Tex. Aug. 6, 2013).

D.   Counsel and Service Information

Lead Counsel	Backup Counsel
Richard C. Pettus (Reg. No. 45,935) Greenberg Traurig LLP 200 Park Avenue New York, NY 10166 pettusr@gtlaw.com; tel. (212) 801-9387; fax. (212) 801-6400	Nicholas A. Brown (*pro hac vice req.*) Greenberg Traurig LLP 4 Embarcadero Center Suite 3000 San Francisco, CA 94114 brownn@gtlaw.com; tel. (415) 655-1271; fax. (415) 707-2010

Petitioner EFF hereby requests authorization to file a motion for Nicholas A. Brown to appear *pro hac vice*. Mr. Brown, an experienced litigator, is counsel for Petitioner EFF in this matter. Mr. Brown has an established familiarity with the podcasting subject matter at issue in this proceeding. Petitioner EFF intends to file such a motion once authorization is granted.

A Power of Attorney under 37 C.F.R. § 42.10 accompanies this Petition.

E.   **Fee for *Inter Partes* Review**

The Director is authorized to charge the fee specified by 37 C.F.R. §

42.15(a) to Account No. 50-2638, which fee is believed to be $23,000. Any

necessary additional fees may be charged to Account No. 50-2638.

F.   **Service of Petition and Service Information**

Proof of service of this petition is provided in the concurrently filed

Certificate of Service. EFF consents to service via email to: pettusr@gtlaw.com

and brownn@gtlaw.com. Service may also be made by mail or hand delivery to:

Greenberg Traurig LLP, 4 Embarcadero Center Suite 3000, San Francisco, CA

94111.

II.   **Introduction**

Personal Audio owns the '504 patent. On the day the '504 patent issued,

Personal Audio put out a press release announcing that it had obtained a

"Podcasting Patent." (Ex.1004). In that press release, Personal Audio asserted that

it "invented what is now commonly called podcasting back in 1996," and that this

accomplishment had been recognized by the Patent Office's decision to allow

the '504 patent. Personal Audio has since filed several lawsuits, claiming that its

"patented technology is used by several media companies offering podcasting,"

and alleging infringement of claims 31-35 of its so-called "Podcasting Patent." (Ex.

1005; Ex. 1006).

Personal Audio, however, did not invent podcasting in 1996. What Personal Audio calls "podcasting"—distributing episodes of media content on the Internet—had been known for at least three years at that point. On March 3, 1993, The New York Times published a story about Carl Malamud's plan "to begin broadcasting a weekly 30-minute radio talk show on the Internet." (Ex. 1007). The show was to be "built around an interview with a person widely known in the computer network field," and was to be called "Geek of the Week." (*Id.*). The New York Times also reported that many experts believed that "listening to such a program via computer instead of a radio" signaled "the first step in a transformation" towards broadcasting via computer networks, instead of traditional television and radio networks. (*Id.*).

Mr. Malamud's Geek of the Week broadcasts began on March 31, 1993, and they "were a hit, with more than 100,000 listeners the first year." (Ex. 1008). Mr. Malamud became "known among Internet cognoscenti for popularizing audio on the Net." (*Id.*). The Washington Post, The Wall Street Journal, and The International Herald Tribune wrote features covering the show and its popularity. (Exs. 1009; 1010; 1011).

Geek of the Week was not the only "podcast" released prior to 1996. For example, the Canadian Broadcasting Corporation ("CBC") ran a year-long Internet radio trial starting in December, 1993. (Ex. 1012 at 2). The CBC's radio shows

were made available through a website after they aired on traditional radio. (*Id.* at

3). The CBC added brief summaries of each show to the website and regularly

updated the website when new content was available. (*Id.*). This trial confirmed the

public's substantial demand for "podcasts," and the CBC decided to continue

offering them after the trial period ended. (*Id.* at 1, 6-7). CNN also aired "podcasts"

before 1996: it made its news segments available on the Internet using a method

that was expressly suitable for various types of episodic content. (*See* Ex. 1022).

Personal Audio did not invent "podcasting." As explained below, what

Personal Audio claimed in claims 31-35 of the '504 patent had been described in

printed publications years earlier. Thus, claims 31-35 of the '504 patent should be

cancelled pursuant to 35 U.S.C. § 102 and § 103.

III.   The Challenged "Podcasting Patent"

Claims 31-35 of the '504 patent are challenged in this petition.[1]

A.   The Alleged Invention

Personal Audio's '504 patent relates generally to the distribution of

"episodes" of media content over the Internet.

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[1] EFF believes that all of the claims in the '504 patent are invalid but has elected to

challenge only claims 31-35 in this petition.

The '504 patent allegedly invented an improvement to how episodes of media content were distributed over the Internet: using a "compilation file" to identify new episodes in a series as those episodes became available. The '504 patent explains that while the existence of "Internet radio" meant that "files of audio program material [were] available for downloading on the World Wide Web using conventional Web browsers to locate and request specific files," this was "impractical for routine desktop use." (Ex. 1001 at 1:64-67, 2:6-10). According to the '504 patent, a problem with existing technology was that it searched for "individual program selections one at a time." (*Id.* at 2:7-8). The invention addressed this problem by providing a mechanism that compiled available episodes in a series, and identified new episodes in the series as they became available. (*Id.* at claim 31).

Personal Audio's website also describes the improvement of the '504 patent as the use of a "compilation file." Personal Audio explains that the '504 patent discloses a "novel mechanism for automatically identifying and retrieving media files representing episodes in a series." (Ex. 1014). This supposedly-novel mechanism is "a compilation file." (*Id.*). The "compilation file" describes the media files that represent the episodes in a series, is "updated as new episodes became available," and is available at a "predetermined URL." (*Id.*; *see also* Ex.

1001 at claim 31). According to Personal Audio, this "compilation file"

mechanism was widely adopted and is now called "podcasting." (Ex. 1014).

The prosecution history of the '504 patent shows that the "compilation file"

was considered by the Patent Office to be the novel aspect of the '504 patent at the

time the patent was allowed. The primary reason for allowance provided by the

patent examiner was that "the prior art does not provide for nor suggest for

updating/downloading current version of a <u>compilation file</u> containing (1) attribute

data describing episodes and (2) including one or more episode URLs identifying

one or more corresponding media files representing said given one of said

episodes." (Ex. 1015 at 2, *numbering and emphasis added*).

Notably, the patent examiner's reasons for allowance do not suggest that

there was anything inventive about the computers or networks used to distribute

the compilation file and the episodes. (*Id.*). Indeed, the '504 patent expressly

acknowledges that the FTP and World Wide Web (HTTP) servers were previously

known, and relies on that preexisting knowledge in describing how to operate a

server for distributing the claimed "episodes" and "compilation file" over the

Internet. (Ex. 1001 at 5:57-6:2; 6:48-7:30; 18:55-60).

B. <u>The Person of Ordinary Skill in the Art</u>

The '504 patent claims priority to an application filed on Oct. 2, 1996. (Ex.

1001 at cover). The '504 patent identifies the field of the invention as "electronic

information distribution systems." (Ex. 1001 at 1:19-22). The challenged claims involve the distribution of media content over the Internet. (*Id.* at 50:34-52:11). The person of ordinary skill in the art for the '504 patent is a person who, as of 1996, had a bachelor's degree in computer science or engineering and at least 3-5 years of experience in the field of electronic information distribution systems, including distribution of media content over the Internet, or who had an equivalent combination of education and experience. (*See* Declaration of Chris Schmandt, Ex. 1002 ("Schmandt Decl."), ¶¶ 18-19).

C.   **Claim Construction**

The terms of the '504 patent receive their broadest reasonable construction in light of the specification of the patent. 37 C.F.R. § 42.100(b). Also, claim terms, unless given different meaning by the patent specification, should be given their ordinary and accustomed meaning as would be understood by one of ordinary skill in the art. *See Phillips v. AWH Corp.*, 415 F.3d 1303, 1320 (Fed. Cir. 2005) (*en banc*); Changes to Implement *Inter Partes* Review Proceedings, Post-Grant Review Proceedings, and Transitional Program for Covered Business Method Patents, 77 Fed. Reg. 48699 (2012), Response to Comment 35.

The challenged claims describe an Internet server (e.g. a web server) that is operated to distribute an "episode" through the use of a "compilation file." Claim

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31 is the only independent claim challenged. It is reproduced in full in the claim

charts of this petition.

1. Summary of Claim 31

Claim 31 recites an apparatus for disseminating "a series of episodes

represented by media files via the Internet," i.e. a server. (Ex. 1001 at claim 31).

The distribution of media files is accomplished using a "compilation file" that is

updated "from time to time as new episodes … become available." (*Id.*).

The claimed apparatus includes a processor, a communication interface, and

a data storage server. It stores each media file at a location specified by an

"episode URL." Similarly, it stores the compilation file at a location specified by

"a predetermined URL." And it is capable of downloading these data files to a

client device in response to a request that specifies the appropriate URL. These

components and capabilities are all part of a standard FTP or World Wide Web

(HTTP) server. (Schmandt Decl. ¶¶ 20-23; *see also* Ex. 1001 at 5:56-6:2; 6:48-59).

The compilation file contains at least two types of "attribute data" for each

currently available episode: "displayable text" describing the episode, and episode

URL(s) specifying the location of the media file(s) representing that episode.

In operation, the claimed server receives a request from a client device for

the compilation file, which is located at the predetermined URL. The server then

downloads the compilation file to the client. Finally, the server receives and

responds to a request from the client for the media file identified by one of the episode URLs that was provided in the compilation file.

In summary, Claim 31 has the following requirements:

(a) An apparatus for disseminating, via the Internet, a series of episodes represented by media files.

(b) A processor, a communication interface, and a data storage server being part of the apparatus.

(c) A "compilation file" that is updated "from time to time as new episodes … become available."

(d) The compilation file and each media file are stored at "predetermined URLs" and "episode URLs," respectively, on the server.

(e) "Attribute data," including "displayable text" and media file URLs for each episode, are contained within the compilation file.

(f) The apparatus operates to (1) receive a request for the updated compilation file at the predetermined URL from a client; (2) download the requested file to the client.

(g) The apparatus further operates to (3) receive and respond to a request from the client that downloaded the compilation file for a media file identified by a URL in the compilation file.

These requirements *(a)* to *(g)* are used below in discussing the prior art.

2. Summary of Dependent Claims 32-35

Dependent claims 32-35 specify additional details of this apparatus. Claim 32 requires at least some of the media files to "contain digital compressed audio recordings." Claim 33 adds that "at least some of said media files contain text data." Claim 34 requires the "attribute data" for each episode to "include displayable text data." Finally, claim 35 requires the "compilation file" to include "displayable text."[2]

3. Constructions for Specific Claim Terms

Specific claim constructions for terms not having their plain and ordinary meaning are provided and explained below.

a. "episode"

The challenged claims require a "series of episodes" in which "new episodes" become available over time. In this context, the specification explains, an episode is a program segment that is part of a series (i.e. a sequence of related segments). (Ex. 1001 at 19:35-42). This is consistent with the ordinary English meaning of "episode." (*See* Ex. 1016). Thus, "episode" includes such concepts as chapters in a

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[2] Claim 35 refers to "the audio program player set forth in claim 34", however no such player is described in claim 34 or its base claim 31. For purposes of this petition, EFF has assumed the claim refers to "the apparatus of claim 34". (*See* Ex. 1001 at claim 35).

book, or a series of lessons, which the specification states may be "readily handled by the invention." (Ex. 1001 at 39:46-57). "Episode" also includes content about an evolving topic, such as "a news story." (*Id.* at 20:5-12, 6:32-35). The claims also require each "episode" to be represented by one or more media files. Thus, an "episode" is a program segment, represented by one or more media files, that is part of a series of related segments, e.g. a radio show or a newscast.

b.   *"data file," "compilation file," and "media file"*

Claim 31 specifies that the claimed server is capable of receiving requests from remotely located client devices, and responding to those requests by downloading "a data file" that is identified by a URL in the request. (Ex. 1001 at 50:40-44). The claim also requires, more specifically, that the server receive and respond to client requests containing URLs for (a) the "compilation file" (*Id.* at 51:1-2) and (b) "one or more media files." (*Id.* at 51:6-7).

"Data file": The ordinary meaning of the term "data file" includes both "compilation files" and "media files." This is confirmed by the claim language, which uses the general term "data file" in describing the capabilities of the server's communication interface. Thus, "data file" should be given its ordinary meaning.

"Compilation file": In the claims, the "compilation file" contains information about each currently-available episode, is stored at a predetermined URL, and is updated from time to time. The specification describes the

"compilation file" in terms that show it is simply an ordinary file that contains the information required by the claim. (*See, e.g.*, Ex. 1001 at 6:60-64, 7:10-22). Thus, "compilation file" refers to any file that contains information about multiple episodes and satisfies the other claim requirements.

"Media file": In the claims, one or more "media files" represent an episode that is downloaded so it can be played/viewed at the client device. This shows that a "media file" is a file that has media content, e.g. video, audio, and/or text. Dependent claims 32 and 33 show that the claimed media files may contain "digital compressed audio" and/or "text data." (Ex. 1001 at claims 32-33). Thus, "media file" refers to a file with content that can be reproduced as video, audio, and/or text.

> c.   *"client device"*

In the claims, the "client devices" send requests for files over the Internet, and then receive downloads of those files from the server. The specification describes the "client" as "a conventional laptop or desktop personal computer." (*See, e.g.*, Ex. 1001 at Fig. 1 and 4:44-46 (describing the processor in a conventional laptop or desktop as "client CPU 105")). Thus, a "client device" is a device, such as a laptop or desktop computer, that can request and receive files using the Internet.

> d.   *"URL", "predetermined URL" and "episode URL"*

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"URL": "URL" is a term of art: it is an acronym for "Universal Resource Locator." (Schmandt Decl. ¶ 24; Ex. 1017 at 1; *see also* Ex. 1029 at 4). A URL is a string of characters that follow the URL syntax and which is used to locate and access resources, such as files. (Schmandt Decl. ¶ 25; *see also* Ex. 1029 at 4).

"Predetermined URL": The broadest reasonable construction of "predetermined URL" is a URL that is known in advance. The specification confirms this interpretation. (*See, e.g.*, Ex. 1001 at 6:60-64, 7:23-26, 13:30-33).

"Episode URL": The broadest reasonable construction of "episode URL" is "a URL that provides location and access information for an episode." This would include, for example, a URL such as "www.ncsa.uiuc.edu/radio/ 033193_geek_01 _ITR.au", which can also be written as "HREF = "033193_ geek_ 01_ ITR.au"" within an HTML page located at "www.ncsa.uiuc.edu/radio/"and provides location and access information for the "033193_ geek_ 01_ ITR.au" audio file. (*See* Schmandt Decl. ¶¶ 26-35).

> e.   *"attribute data"*

The broadest reasonable interpretation of "attribute data" is "values of data fields which are stored in the compilation file." This could include, for example, values about the duration of an episode or the description of the episode. The specification confirms this, explaining that the "attributes" of a "program segment" are "described in the data fields of each record (row) in the Program Table 303."

(Ex. 1001 at 17:22-25). Those data fields include one for "URL," showing that a URL is an attribute. They also include "SubjectDesc" and "TopicDesc," which the specification describes as identifying "displayable text descriptions of subjects and topics." (*Id.* at 19:6-21). Claim 31 of the '504 itself specifies that the "attribute data" must include "displayable text describing [the available episodes]" and "episode URLs specifying the storage locations of one or more corresponding media files representing said given one of said episodes." (*Id.* at claim 31).

f.   *"displayable text data"*

The specification describes "displayable text data" as text that is "displayable by the player 103 as part of descriptive catalog entries which enable the user to choose desired segments." (Ex. 1001 at 19:22-23). It uses HTML as an example of how to provide "displayable text" describing audio content. (*See id.* at 43:42-45:10 ("Defining Audio Programming with HTML …")). Thus, the broadest reasonable construction of "displayable text data" is "data that can be displayed as human-legible text, such as the displayable components of HTML."

IV.   Requested Grounds for Rejection

Personal Audio claims to have invented "podcasting," but it did not. Multiple printed publications demonstrate that what Personal Audio claims to have invented—Internet distribution of media content using a "compilation file" that identifies episodes in a series, and is updated with new episodes as they became

available—was known long before Personal Audio applied for its patent. Five

specific grounds for rejection are identified below. They are:

(a)   Ground 1: Claims 31-35 are unpatentable under 35 U.S.C. § 102(b)

as being anticipated by the web page www.ncsa.uiuc.edu/radio/radio.html as it

appeared on April 22, 1993. ("NCSA GotW page", Ex. 1019 (rendered version),

1021 (HTML version)).

(b)   Ground 2: Claims 31-35 are unpatentable under 35 U.S.C. § 102(b) as

being anticipated by the April 22, 1993 edition of the SurfPunk Technical Journal

("SurfPunk", Ex. 1020).

(c)   Ground 3: Claims 31-35 are unpatentable under 35 U.S.C. § 103 as

being obvious over all of the Geek of the Week publications cited herein,

considered collectively with their supporting evidence. ("Geek of the Week

publications", Exs. 1003, 1007-1011, 1018-1028).

(d)   Ground 4: Claims 31-35 are unpatentable under 35 U.S.C. § 102(a) as

being anticipated by Patrick, A. et al, *CBC Radio on the Internet: An Experiment in*

Convergence, 21 Canadian J. of Comm'n 1, 125-140 (Jan. 1, 1996) (the "CBC

Radio Article", Ex. 1012).

(e)   Ground 5: Claims 31-35 are unpatentable under 35 U.S.C. § 103 as

being obvious based on Compton, C., *Internet CNN NEWSROOM: The Design of a*

Digital Video News Magazine, Massachusetts Institute of Technology (Aug. 10,

1995) ("Internet CNN Newsroom", Ex. 1022) and the knowledge of one of
ordinary skill.

Supporting evidence for each of these grounds, including the Schmandt
Declaration, is also identified and explained. Petitioner also submits the declaration
of Carl A. Malamud, the publisher of the Geek of the Week program that was
incorporated into the NCSA GotW page and is described in the numerous
publications regarding the same. (Ex. 1003). None of the prior art presented below
was considered by the Patent Office when it allowed the '504 patent.

A. **Claims 31-35 are anticipated by the Geek of the Week web page published at www.ncsa.uiuc.edu/radio/radio.html in April 1993.**

Carl Malamud began publishing his "Geek of the Week" Internet talk radio
show on March 31, 1993. (Ex. 1003 ¶¶ 6-7). "Geek of the Week" was published
using a web page, and was also distributed using FTP. (*Id.* ¶¶ 9-12). It was "a hit,
with more than 100,000 listeners the first year." (Ex. 1008).

One Geek of the Week web page, www.ncsa.uiuc.edu/radio/radio.html, was
hosted by the National Center for Supercomputing Applications at the University
of Illinois—the same organization where Marc Andreessen created the Mosaic web
browser before leaving to found Netscape. (Ex. 1018; *see also* Ex. 1029 at 1). A
rendering of this web page as it existed on April 22, 1993 is shown on the next
page. (*See* Schmandt Decl. ¶¶ 34-35, Ex. 1019). While the web page
www.ncsa.uiuc.edu /radio/radio.html that existed in April, 1993 (the "NCSA

GotW page") no longer exists at that location, it was copied on that date, and published in SurfPunk Technical Journal. (Ex. 1020; Schmandt Decl. ¶ 43; *see* Ex. 1021). This copy proves the content of the NCSA Geek of the Week web page as of April 22, 1993.

As of that date, this web page, which had been updated, contained four weekly episodes of Geek of the Week—the March 31, April 7, April 14, and April 21 editions. (Ex. 1019, Ex. 1021). The web page also included text describing each episode, with links to the audio files that made up each episode. (*Id.*). In short, this Geek of the Week web page from April 1993 had all the features of the "compilation file" that Personal Audio claims it invented in 1996, and that the patent examiner believed were not previously known when he explained his reasons for allowing the '504 patent. *See supra*, Section III.A. As further

> **Internet Talk Radio**
>
> **General Information**
>
> - Introduction to Internet Talk Radio.
> - Overview of Geek of the Week.
>
> **April 21, 1993**
>
> Here's the overview of the April 21 edition of Internet Talk Radio.
>
> - Steve Deering, Part 1 (5.6 megs)
> - The Incidental Tourist (1.6 megs)
> - Steve Deering, Part 2 (6.0 megs)
> - Book Byte (0.7 megs)
> - Steve Deering, Part 3 (5.4 megs)
>
> **April 14, 1993**
>
> Here's the overview of the April 14 edition of Internet Talk Radio.
>
> - Daniel Lynch, Part 1 (5.7 megs)
> - The Incidental Tourist (0.9 megs)
> - Daniel Lynch, Part 2 (5.5 megs)
> - Legal Stuff (0.2 megs)
> - Daniel Lynch, Part 3 (3.4 megs)
>
> **April 7, 1993**
>
> Here's the overview of the April 7 edition of Internet Talk Radio.
>
> - Dr. Erik Huizer, Part 1 (5.4 megs)
> - The Incidental Tourist (1.5 megs)
> - Dr. Erik Huizer, Part 2 (4.8 megs)
> - Book Byte (0.7 megs)
> - Dr. Erik Huizer, Part 3 (5.9 megs)
> - Name That Acronym (0.5 megs)
> - Dr. Erik Huizer, Part 4 (5.2 megs)
>
> **March 31, 1993**
>
> Here's the overview of the March 31 edition of Internet Talk Radio.
>
> - Dr. Marshall Rose, Part 1 (5.6 megs)
> - The Incidental Tourist (1.5 megs)
> - Dr. Marshall Rose, Part 2 (5.1 megs)
> - Book Byte (0.6 megs)
> - Dr. Marshall Rose, Part 3 (5.6 megs)
> - Name That Acronym (0.5 megs)
> - Dr. Marshall Rose, Part 4 (4.2 megs)
>
> *marca@ncsa.uiuc.edu*

explained below, the NCSA GotW page was a printed publication that anticipates

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claims 31-35 of the '504 patent.

1. *The NCSA's Geek of the Week Page is a printed publication*

The Geek of the Week web page www.ncsa.uiuc.edu/radio/radio.html that existed on April 22, 1993 is a printed publication. The NSCA GotW page was publicly available and known to those of skill in the relevant field, because on April 13, 1993, Marc Andreessen, the maker of Mosaic, announced the public availability of Geek of the Week through this web page. (Ex. 1018). There were no prohibitions on its being copied. (*See id.* (containing no restriction on the website's dissemination); Ex. 1019 (same)). Moreover, the SurfPunk Technical Journal article (Ex. 1020) shows that on April 22, 1993 this specific page was actually copied, and the copy republished. (*See* Schmandt Decl. ¶ 50).

Accordingly, the NCSA GotW page qualifies as a printed publication. *See* MPEP § 2128; *In re Klopfenstein*, 380 F.3d 1345, 1350-52 (Fed. Cir. 2004) (finding that a printed slide presentation on display for 3 days without confidentiality restrictions was a "printed publication"); *see also Mass. Inst. of Tech. v. AB Fortia*, 774 F.2d 1104 (Fed. Cir. 1985) (distribution of six copies of a presentation that had been delivered orally was enough to make the copies "printed publications"); *Voter Verified, Inc. v. Premier Election Sol'ns*, 698 F.3d 1374, 1380-81 (Fed. Cir. 2012) (magazine distributed via a subscription mailing list and available for download was a printed publication).

2. *Claim 31 is anticipated by the NCSA GotW page.*

   a. *The NCSA GotW page discloses requirement (a): an apparatus for disseminating, via the Internet, a series of episodes represented by media files.*

The NCSA GotW page disseminated the Geek of the Week ("GotW") Internet talk radio show. Each weekly GotW show is an "episode." A set of weekly shows—e.g. the March 31, April 7, April 14, and April 21, 1993 episodes that were available on April 22, 1993 on the NCSA server—is the claimed "series of episodes."

Each GotW episode was broken into segments, and each segment is represented by a compressed audio file with the file extension ".au." For example, the March 31, 1993 episode of GotW available on the NCSA server included the seven files from 033193_geek_01_ITR.au through 033193_geek_07_ITR.au. (Schmandt Decl. ¶¶ 29-34). These compressed audio files are the claimed "media files."

An ordinary artisan understood in 1993 that a web page such as the NCSA GotW page was necessarily published by a web server (HTTP server). (Schmandt Decl. ¶¶ 46-51; *see also* Ex. 1029 at 5). That web server is the claimed "apparatus for disseminating … episodes." (Schmandt Decl. ¶ 46). In other words, the server that responded to the public's requests for the NCSA GotW web page, including for example SurfPunk's "telnet www.ncsa.uiuc.edu port 80" and "GET /radio/radio.html" requests on April 22, 1993 (the "NCSA GotW server"), is the

claimed apparatus. (Schmandt Decl. ¶ 51). *See In re Baxter Travenol Labs*, 952

F.2d 388, 390 (Fed. Cir. 1991) ("extrinsic evidence may be considered when it is

used to explain, but not expand, the meaning of a reference"); MPEP § 2131.01.

> **b.** **The NCSA GotW page discloses requirement (b): the apparatus for disseminating episodes includes a processor, a communication interface, and a data storage server.**

The NCSA GotW page was necessarily published by a web server that

necessarily included the claimed processor, interface, and data storage. (Schmandt

Decl. ¶ 47; *see also* Ex. 1029 at 5, 7). The standard capabilities and components of

web servers were known to those of ordinary skill as of 1996. (*See* Schmandt Decl.

¶¶ 19-23; *see also* Ex. 1029 at 5, 7). Indeed, as mentioned above, the '504 patent

expressly acknowledges that the FTP and World Wide Web (HTTP) servers were

previously known, and relies on that preexisting knowledge in describing how to

operate a server for distributing the claimed "episodes." All web servers

necessarily include and have included the claimed "processor," "communication

interface," and "data storage server." (Schmandt Decl. ¶¶ 47-49). Thus, while the

NCSA GotW page is not itself a web server, any person of ordinary skill reviewing

the NCSA GotW page would understand it to reveal all the standard components of

a web server, including the processor, communication interface, and data storage

server. (*Id.*). The web page could not have been published without these three

components.

> c.   The NCSA GotW page discloses requirement (c): a
> "compilation file" that is updated "from time to time as
> new episodes … become available."

The NCSA GotW page discloses—indeed exemplifies—the claimed

"compilation file." The NCSA GotW page, i.e. www.ncsa.uiuc.edu/

radio/radio.html, was updated "from time to time as new episodes … bec[a]me

available." This is shown by the fact that on April 22, 1993, it contained four

weekly episodes, one for each week since it launched (March 31, April 7, April 14,

and April 21). (Schmandt Decl. ¶ 34; Ex. 1019; Ex. 1021). An ordinary artisan

would have understood from the disclosure of the April 21, 1993 episode of Geek

of the Week that the page had been updated, since the artisan would have known

that the page existed before the April 21 episode was released. (*See* Ex. 1018

(announcing the page prior to April 22, 1993); *see generally* Ex. 1028 (press

release entitled "*Weekly 'Geek of the Week' Interviews to Air on Internet Talk*

Radio in March" and discussing the program); *see also* Ex. 1023 (showing that at

later times, the radio.html file hosted by the GotW NCSA server included many

more episodes with later dates)). Thus, the NCSA GotW page is the "updated

compilation file." *See In re Baxter Travenol Labs.*, 952 F.2d at 390-91 (evidence

may be used in an anticipation analysis to show how a prior art disclosure would

have been understood by one of ordinary skill in the art); MPEP § 2131.01.

> d. *The NCSA GotW page discloses requirement (d): the compilation file and each media file are stored at "predetermined URLs" and "episode URL," respectively.*

The NCSA GotW page was stored at a "location identified by a predetermined URL": www.ncsa.uiuc.edu/radio/radio.html. (Schmandt Decl. ¶ 51; Ex. 1003 ¶ 9; Ex. 1018; Exs. 1019-21). In addition, the compressed audio files for each GotW episode were stored at a location specified by an "episode URL", as described above in requirement (a). For example, the episode segment for Dr. Marshall Rose could be found at the episode URL "HREF = "033193_ geek_ 01_ ITR.au"". (Schmandt Decl. ¶ 34; Ex. 1020).

> e. *The NCSA GotW page discloses requirement (e): that the compilation file contains "attribute data," including "displayable text" and media file URLs for each episode*

The NCSA GotW page discloses the claimed "compilation file," as explained above. It contains the claimed "attribute data describing currently available episodes," including both "displayable text describing" the episodes and "episode URLs specifying the storage locations of one or more corresponding media files."

For example, it contained HMTL that renders as shown in the image on the right. (Schmandt Decl. ¶¶ 27-35). The HMTL that renders into this image includes the string "<LI> <A NAME

March 31, 1993

Here's the overview of the March 31 edition of Internet Talk Radio.

- Dr. Marshall Rose, Part 1 (5.6 megs)
- The Incidental Tourist (1.5 megs)
- Dr. Marshall Rose, Part 2 (5.1 megs)
- Book Byte (0.6 megs)
- Dr. Marshall Rose, Part 3 (5.6 megs)
- Name That Acronym (0.5 megs)
- Dr. Marshall Rose, Part 4 (4.2 megs)

= 1 HREF = "033193_ geek_ 01_ ITR.au" > Dr. Marshall Rose, Part 1</A> (5.6

megs)." (*Id.*). This string contains both displayable text ("Dr. Marshall Rose, Part 1

(5.6 megs)") and a URL ("HREF = "033193_ geek_ 01_ ITR.au""). (Schmandt

Decl. ¶¶ 27-33). The displayable text describes the episode in question, which

included an interview of Dr. Marshall Rose. The URL specifies the location of one

of the media files representing the episode. (*Id.*).

> f.   *The NCSA GotW page discloses requirement (f):*
> *operating the apparatus to (1) receive a request for the*
> *updated compilation file at the predetermined URL, and*
> *(2) download the requested file to the client.*

The NCSA GotW page was published by a web server to requesting clients,

which an ordinary artisan understood in 1993 were typically browsers. To obtain a

web page, the browser on the client computer requests the HMTL file representing

that page from the server, and the server responds by downloading that file to the

browser. (Schmandt Decl. ¶ 27; *see also* Ex. 1029 at 4). For example, when a

browser accessed the 1993 NCSA server hosting the GotW page "radio.html," the

browser requests the file at www.ncsa.uiuc.edu/radio/radio.html, and the web

server responds by downloading that file to the browser. (*Id.*).

> g.   *The NCSA GotW page discloses requirement (g):*
> *operating the apparatus to (3) receive and respond to a*
> *request from the client for a media file identified by a*
> *URL in the compilation file.*

As explained above, the NCSA GotW page included URLs (displayed as

links) for the media files representing each Geek of the Week episode. An ordinary

artisan understood in 1993 that after a browser has requested, received, and then

displayed the radio.html page, the user could click one of the links to the media

files. When that happened, the browser transmitted a request for the media file

identified by that URL to the web server, and the web server downloaded that file

to the browser. (Schmandt Decl. ¶¶ 27, 34; *see also* Ex. 1029 at 4).

3. *Claims 32-35 are anticipated by the NCSA GotW page.*

The NCSA GotW page discloses all of the limitations of the dependent

claims as well. Dependent claim 32 requires that the media files contain

compressed audio. (Ex. 1001 at claim 32). The NCSA GotW page discloses ".au"

files, which are compressed audio files. (Ex. 1019; Schmandt Decl. ¶ 54).

Dependent claim 33 requires that "some of the media files contain text data

which may be displayed or reproduced in spoken audible form." These "text data"

media files would have been apparent to the ordinary artisan from the NCSA

GotW page. (Ex. 1019 (linking to an "overview" text file); Schmandt Decl. ¶ 55).

Dependent claims 34 and 35 were similarly disclosed by the NCSA GotW

page. The publication disclosed attribute data (e.g. the date, the size of the media

file, and the name of the segments) which described each episode. And finally, the

NCSA GotW page included a text file which provided an overview of the Geek of

the Week series of episodes. (Ex. 1019; Ex. 1021; Schmandt Decl. ¶ 57).

B. **Claims 31-35 are anticipated by SurfPunk, which republished the NCSA GotW page**

The web page www.ncsa.uiuc.edu/radio/radio.html that existed on April 22, 1993 was copied, and the copy was republished in the April 22, 1993 edition of SurfPunk Technical Journal ("SurfPunk"). The SurfPunk Technical Journal is listed in the 1994 edition of the Directory Of Electronic Journals, Newsletters, and Academic Discussion Lists. (Ex. 1030 at 6). SurfPunk is a printed publication. *See Voter Verified, Inc.*, 698 F.3d at 1380-81 (magazine distributed via a subscription mailing list and available for download was a printed publication); MPEP § 2128.

SurfPunk contains all of the content identical of the NCSA GotW page, and thus anticipates the '504 patent for at least the reasons described above. To the extent there is any doubt that the NCSA GotW page is a printed publication, SurfPunk also anticipates.

C. **Claims 31-35 are obvious based on Geek of the Week Publications**

The NCSA GotW page was far from the only web page that published "Geek of the Week" prior to January 1, 1996. Nor were web pages the only printed publications describing GotW—many others have already been described, including SurfPunk, articles in Newsweek, The New York Times, and The Washington Post, as well as USENET posts. Claims 31-35 are obvious in light of the NCSA GotW page, in combination with other web pages at www.ncsa.uiuc.edu/radio/ as well as at www.cmf.nrl.navy.mil/radio/, both of

which published Geek of the Week prior to 1996, and with other printed publications demonstrating the public distribution of Geek of the Week Internet radio shows prior to 1996. (*See* Exs. 1003, 1007-1011, 1018-1028; *see also* Schmandt Decl. ¶¶ 44-45).

As explained above, many of the elements of the claims are disclosed by the NCSA GotW page not in the words of the web page, but by virtue of its existence as a published web page: a web page is necessarily published by a web server that has a processor, communication interface, data storage, ability to receive and respond to requests for files, etc. While Petitioner believes that the NCSA GotW page is an anticipatory reference, to the extent there is any doubt that any of the elements of the challenged claims are disclosed, expressly or inherently, those doubts can be removed by considering collectively, under 35 U.S.C. §103, the Geek of the Week printed publications identified above. As shown in more detail in the claim chart below, those publications disclose *expressly* all the limitations of the challenged claims. For example, several publications explain that servers hosted the web pages. (*See, e.g.*, Ex. 1008). It would have been obvious to a person of ordinary skill in the art to combine the disclosures of these publications because they were all describing the same thing: the Geek of the Week Internet radio show.

D. **Claim Chart showing the NCSA GotW page and SurfPunk each anticipate Claims 31-35, and that the Geek of the Week publications render Claims 31-35 obvious.**

Claim Limitation	The NCSA GotW page (Ex. 1019 (rendered); Ex. 1021 (HTML)); SurfPunk (Ex. 1020); Geek of the Week publications (Exs. 1003, 1007-1011, 1018-1028).
31. Apparatus for disseminating a series of episodes represented by media files via the Internet as said episodes become available, said apparatus comprising:	"Apparatus for disseminating … via the Internet": A person of ordinary skill would understand that the NCSA GotW page was available through a web server (HTTP server), which is the claimed apparatus. (Schmandt Decl. ¶ 45; Ex. 1019; Ex. 1020). For example, the server that responded to SurfPunk's "telnet www.ncsa.uiuc.edu port 80" and "GET /radio/radio.html" requests on April 22, 1993 (the "1993 NCSA server") was an "apparatus for disseminating … episodes." (Schmandt Decl. ¶ 51; Ex. 1019; Ex. 1020; Ex. 1021). "a series of episodes represented by media files…as said episodes become available": It was also understood that Geek of the Week was a weekly series of "Internet Talk Radio" shows. (*See generally* Ex. 1028 ("Internet Talk Radio will begin airing a weekly half-hour interview program, 'Geek of the Week,' over the Internet in late March."); Ex. 1003 ¶ 5). Each weekly show, including each of its parts, is a claimed "episode." A set of weekly shows is the claimed "a series of episodes." Each GotW episode was represented by compressed audio files with the file extension ".au." For example, the March 31, 1993 episode of GotW included the seven files 033193_geek_01_ITR.au … 033193_geek_07_ITR.au. (Schmandt Decl. ¶¶ 34, 48). It would have been understood from the NCSA GotW page that new files were added as

	they became available. (Schmandt Decl. ¶¶ 48-49). In addition, the NCSA GotW page, prior to April 22, 1993, was known to have Geek of the Week content, also showing that it would be understood to be updated as files became available. (*See* Ex. 1018).
one or more data storage servers,	An artisan would have understood the NCSA GotW page to disclose a data storage server, i.e. the 1993 NCSA server, because it needed to store the content to make it available. (Schmandt Decl. ¶¶ 47-49).
one or more communication interfaces connected to the Internet for receiving requests received from remotely located client devices,	In order to retrieve a web page, a communications interface at the server is needed to receive a request for the page. (*See* Schmandt Decl. ¶ 51). Thus the fact that a person could retrieve the NCSA GotW page over the Internet disclosed that the NCSA server included the claimed "communication interface" and received "requests" (e.g. GET) from "remotely located client devices." (Schmandt Decl. ¶¶ 51-52; Ex. 1020 (disclosing port 80)).
and for responding to each given one of said requests by downloading a data file identified by a URL specified by said given one of said requests to the requesting client device,	A web server that made the NCSA GotW page available on the Internet responded to "requests" (e.g. GET) by "downloading a data file identified by a URL" as claimed. (Schmandt Decl. ¶ 51; *see also* Ex. 1019; Ex. 1020). For example, the web server would provide the file 033193_geek_01_ITR.au in response to a GET request containing the URL "www.ncsa.uiuc.edu/radio/033193_geek_01_IT R.au". Thus, the NCSA GotW paged disclosed a data file identified by a URL specified by a request, as claimed.
one or more processors coupled to said one or more data storage servers and to said one or more communications interfaces for:	By disclosing a web page, the NCSA GotW page disclosed a server, e.g. the 1993 NCSA server, that necessarily included the claimed "one or more processors," which were necessarily "coupled" to the "data storage server" and "communication interfaces." (Schmandt Decl. ¶¶ 46-47; *see also* Ex. 1020 (disclosing the "GET"

	command)).
storing one or more media files representing each episode as said one or more media files become available, each of said one or more media files being stored at a storage location specified by a unique episode URL;	The NCSA GotW page disclosed storing the "media files representing each episode" as they became available, as claimed. The NCSA GotW page disclosed media files specified by a unique episode URL. (Ex. 1021 (disclosing at least the media files 040793_geek_01_ITR.au … 040793_geek_07_ITR.au, each stored at a unique location); Schmandt Decl. ¶¶ 30-31 (describing the use of HREF); *see also* Ex. 1019; Ex. 1020). Due to the use of dates on the page, an artisan would thus have understood from the NCSA GotW page that new episodes were added as they became available. (Schmandt Decl. ¶ 48; Ex. 1019; Ex. 1020). In addition, an artisan would have known the website to have existed before the April 22, 1993 publication, leading to the conclusion that the files were stored when they became available. (*See* Ex. 1018; Schmandt Decl. ¶ 49).
from time to time, as new episodes represented in said series of episodes become available, storing an updated version of a compilation file in one of said one or more data storage servers at a storage location identified by a predetermined URL,	The NCSA GotW page, e.g. www.ncsa.uiuc.edu/ radio/radio.html, discloses—indeed exemplifies—the claimed "compilation file." It was stored at a "location identified by a predetermined URL," as claimed. It would have been understood that the NCSA GotW page was updated regularly, as shown by the fact that it contained four weekly episodes (March 31, April 7, April 14, and April 21) when it was published at www.ncsa.uiuc.edu/radio/radio.html as of April 22, 1993. (Schmandt Decl. ¶ 49; Ex. 1019; Ex. 1003 ¶ 11). In addition, it would have been known that the site previously did not contain the April 21, 1993 episode, as the site was known to exist before then. (Schmandt Decl. ¶¶ 49-50; *see also* Ex. 1018). Thus the NCSA GotW page disclosed that the web server stored "an updated version of a compilation file … at a storage

	location identified by a predetermined URL," as claimed, and it did so "as new episodes … become available."
said updated version of said compilation file containing attribute data describing currently available episodes in said series of episodes, said attribute data for each given one of said currently available episodes including displayable text describing said given one of said currently available episodes and one or more episode URLs specifying the storage locations of one or more corresponding media files representing said given one of said episodes, and	The NCSA GotW page, i.e. "radio.html" discloses the claimed "updated version of said compilation file." It contains the claimed "attribute data describing currently available episodes," including both "displayable text describing" the episodes and "episode URLs specifying the storage locations of one or more corresponding media files." The web page published at www.ncsa.uiuc.edu/radio/radio.html as of April 22, 1993 contained html that renders as shown in this image: **March 31, 1993** Here's the overview of the March 31 edition of Internet Talk Radio. • Dr. Marshall Rose, Part 1 (5.6 megs) • The Incidental Tourist (1.5 megs) • Dr. Marshall Rose, Part 2 (5.1 megs) • Book Byte (0.6 megs) • Dr. Marshall Rose, Part 3 (5.6 megs) • Name That Acronym (0.5 megs) • Dr. Marshall Rose, Part 4 (4.2 megs) (Schmandt Decl. ¶¶ 48-50, 34-35). The HMTL that renders into this image includes the string "<LI> <A NAME = 1 HREF = "033193_ geek_ 01_ ITR.au" > Dr. Marshall Rose, Part 1</A> (5.6 megs)." (*Id.* ¶ 34-35). This string contains both displayable text ("Dr. Marshal Rose, Part 1 (5.6 megs)") and a URL ("HREF = "033193_ geek_ 01_ ITR.au""). (*Id.* ¶ 34-35). The displayable text describes the episode in question, which included an interview of Dr. Marshal Rose. The URL specifies the location of one of the media files representing the episode. (*Id.* ¶¶ 30-31; *see also id.* ¶ 49; Ex. 1019; Ex. 1020).
employing one of said one or more communication	As described above, a web server, e.g. the 1993 NCSA server, included the claimed

interfaces to:	"communication interface." That interface was used in performing the steps that follow. (*See* Ex. 1020 (showing a connection to a communication interface)).
(a) receive a request from a requesting client device for the updated version of said compilation file located at said predetermined URL;	The NCSA GotW page discloses the existence of the NCSA server, that would receive from a "client device" the claimed "request … for the updated version of said compilation file" whenever it received a request for the NCSA GotW page (i.e. the claimed "updated … compilation file"). (Schmandt Decl. ¶ 46). As another example, the "GET /radio/radio.html" request issued to "www.ncsa.uiuc.edu port 80" on April 22, 1993 was such a request. (Schmandt Decl. ¶ 51; Ex. 1019; Ex. 1020).
(b) download said updated version of said compilation file to said requesting client device; and	By its nature, the NCSA GotW page disclosed that whenever the GotW web server received a request as described in the previous step, it would respond by downloading the file representing the requested web page, (i.e. the claimed "updated … compilation file"). (Schmandt Decl. ¶ 51). As an example, after receiving the "GET /radio/radio.html" request on April 22, 1993, the GotW web server at "www.ncsa.uiuc.edu port 80" responded by downloading the html file whose contents are shown in the text of the April 22, 1993 edition of SurfPunk Technical Journal. (Schmandt Decl. ¶ 51; Ex. 1019; Ex. 1020).
(c) thereafter receive and respond to a request from said requesting client device for one or more media files identified by one or more corresponding episode URLs included in the attribute data contained in said updated version of said compilation files.	As described above, the NCSA GotW page included URLs specifying the locations of the media files representing each episode of GotW. Whenever the NCSA server received a request for a URL specifying the location of one of these media files, it would respond by downloading the specified file. (Schmandt Decl. ¶ 53; Ex. 1019; Ex. 1020).

32. The apparatus as set forth in claim 31 wherein at least some of said media files contain digital compressed audio recordings that may be reproduced in audible form by a requesting client device.	As described above, each GotW episode was represented by compressed audio files with the file extension ".au." For example, the March 31, 1993 episode of GotW included the seven files 033193_geek_01_ITR.au … 033193_geek_07_ITR.au. These files are the claimed "digital compressed audio recordings." (Schmandt Decl. ¶54; Ex. 1019; Ex. 1020).
33. The apparatus as set forth in claim 31 wherein at least some of said media files contain text data which may be displayed or reproduced in spoken audible form by a requesting client device.	The NCSA GotW page disclosed GotW episodes described by an "overview" that was linked from the main web page, as shown by the image below of a portion of the radio.html page on the NCSA server: (Schmandt Decl. ¶ 55). This is confirmed by the string "Here's the <A NAME=8 HREF="033193_geek_ITR.readme.txt">overview</A> of the March 31 edition of Internet Talk Radio" in "radio.html." This "overview" was a "media file" that contained "text data which may be displayed," as required by the claim. For example, the text in the "overview" for the March 31, 1993 episode of GotW (033193_geek_ITR.readme.txt) included the following: "On this week's "Geek of the Week," hosted by Dr. Moira Gunn: Carl Malamud interviews Dr. Marshall T. Rose of Dover Beach Consulting." (*See* Schmandt Decl. ¶ 55; Ex. 1019; Ex. 1020).

34. The apparatus set forth in claim 33 wherein said attribute data for each given one of said episodes further includes displayable text data describing said given one of said episodes.	As described above, the NCSA GotW page contains the claimed "attribute data," including "displayable text" describing the episodes. The image below (Ex. 1019) shows there is displayable text describing each of four weekly episodes:
	Internet Talk Radio **General Information** • Introduction to Internet Talk Radio. • Overview of Geek of the Week. **April 21, 1993** Here's the overview of the April 21 edition of Internet Talk Radio. • Steve Deering, Part 1 (5.6 megs) • The Incidental Tourist (1.6 megs) • Steve Deering, Part 2 (6.0 megs) • Book Byte (0.7 megs) • Steve Deering, Part 3 (5.4 megs) **April 14, 1993** Here's the overview of the April 14 edition of Internet Talk Radio. • Daniel Lynch, Part 1 (5.7 megs) • The Incidental Tourist (0.9 megs) • Daniel Lynch, Part 2 (5.5 megs) • Legal Stuff (0.2 megs) • Daniel Lynch, Part 3 (3.4 megs) **April 7, 1993** Here's the overview of the April 7 edition of Internet Talk Radio. • Dr. Erik Huizer, Part 1 (5.4 megs) • The Incidental Tourist (1.5 megs) • Dr. Erik Huizer, Part 2 (4.8 megs) • Book Byte (0.7 megs) • Dr. Erik Huizer, Part 3 (5.9 megs) • Name That Acronym (0.5 megs) • Dr. Erik Huizer, Part 4 (5.2 megs) **March 31, 1993** Here's the overview of the March 31 edition of Internet Talk Radio. • Dr. Marshall Rose, Part 1 (5.6 megs) • The Incidental Tourist (1.5 megs) • Dr. Marshall Rose, Part 2 (5.1 megs) • Book Byte (0.6 megs) • Dr. Marshall Rose, Part 3 (5.6 megs) • Name That Acronym (0.5 megs) • Dr. Marshall Rose, Part 4 (4.2 megs) *marca@ncsa.uiuc.edu* (*See also* Schmandt Decl. ¶ 56).
35. The audio program player set forth in claim 34 wherein said updated version of said compilation file further includes displayable text describing said series of episodes.	As described above and in connection with claim 34, the NCSA GotW page discloses the claimed "updated compilation file," and it contains "displayable text describing [the] series of episodes," as required by claim 35. For example, as shown above, it contains the title "Internet Talk Radio" as well as the text "Overview of Geek of the Week," both of which describe the

| | series of episodes. (Schmandt Decl. ¶ 57; Ex. 1019; Ex. 1020; Ex. 1021). |

E.   Claims 31-35 are anticipated by the CBC Radio Article

The CBC Radio Article, which was published on January 1, 1996, describes

an Internet radio trial that was run by the Canadian Broadcasting Corporation. (Ex.

1012; Ex. 1013 (article metadata)). This trial made CBC broadcast content

available on demand and over the Internet, beginning in December, 1993. (Ex.

1012 at 2; Schmandt Decl. ¶ 59). The CBC Radio Article describes the CBC Radio

program, including the availability of regularly-updated episodic radio programs

on a web page at a predetermined location. (Ex. 1012 at 2-3).

1.   *Claim 31 is anticipated by the CBC Radio Article*

The CBC Radio Article describes how the CBC's radio programs were made

available on the Internet using a web page (i.e. HTML file), initially on a server

that was "already well known" and later at the website of the CBC. (Ex. 1012 at 3,

7; Schmandt Decl. ¶ 64). The CBC trial was widely publicized and used. (Ex. 1012

at 4, 7; Schmandt Decl. ¶ 64).

> *a.   The CBC Radio Article discloses requirement (a): an apparatus for disseminating, via the Internet, a series of episodes represented by media files.*

The CBC Radio Article describes in detail an apparatus used to disseminate

copies of its "radio broadcasts" over the Internet. (Ex. 1012 at 2; Schmandt Decl. ¶

60). These broadcasts included regular news programming and a weekly science

show called "Quirks & Quarks," both of which are series of episodes represented

by media files as that term is used in the '504 patent. (Ex. 1012 at 2-3 ("Installing

the Server" and "Initial Program Offerings"); Schmandt Decl. ¶¶ 60, 62-63).

b.   *The CBC Radio Article discloses requirement (b): the apparatus for disseminating episodes includes a processor, a communication interface, and a data storage server.*

The CBC Radio Article specifically describes how "the first CBC Radio

programs were prepared on a computer in the laboratory and made available

through the Internet." (Ex. 1012 at 2-3; Schmandt Decl. ¶¶ 62-64). Recorded

programs were placed on a "well known" web server that was "listed in many

network directories as an interesting site to visit." (Ex. 1012 at 3; Schmandt Decl. ¶

64). Any server storing media files that is accessible by the public via the Internet

would necessarily include a processor, communication interface, and a data storage

server. (*See* Schmandt Decl. ¶¶ 22-23; 63-64).

c.   *The CBC Radio Article discloses requirement (c): a "compilation file" that is updated "from time to time as new episodes ... become available."*

The CBC Radio Article explains that the Quirks & Quarks program and the

CBC's daily radio newscasts were made available on a website via the server

immediately after the broadcast. (Ex. 1012 at 5). The website described each

show's contents. (*Id.*; *see also* Schmandt Decl. ¶ 64). This website is the claimed

"compilation file." (Schmandt Decl. ¶ 64). It was regularly updated as new content

became available. (*See, e.g.*, Ex. 1012 at 5 ("there were no new *Quirks & Quarks*

files on the server during the summer because the show was in hiatus, so this

section of the trial was not updated during this time")).

    d.   *The CBC Radio Article discloses requirement (d):the*
        compilation file and each media file are stored at
        "predetermined URLs" and "episode URLs,"
        respectively.

   The CBC Radio compilation file was stored at a "location identified by a

predetermined URL," as claimed. (*See* Schmandt Decl. ¶ 64). In addition, the audio

files for each episode were stored at a location specified by an "episode URL." For

example, the CBC Radio website featured a menu for each episode, describing its

contents. (Ex. 1012 at 5). Listeners selected programs by clicking on the links

contained in that description. (Schmandt Decl. ¶ 65). Each link was a claimed

"predetermined URL" that specified the storage location on the server of the file

representing each episode (or, in the case of a segment or chapters of a larger

episode, that segment or chapter). (*Id.*; *see also* Ex. 1012 at 4).

    e.   *The CBC Radio Article discloses requirement (e): the*
        compilation file contains "attribute data," including
        "displayable text" and media file URLs for each episode.

   The compilation files disclosed in the CBC Radio Article included

"displayable text describing" the episodes and "episode URLs specifying the

storage locations of one or more corresponding media files." For example, the

CBC Radio Article discloses an HTML file containing "in-line" images that were

included on the website and augmented the textual information in the menus that

described the episodes in question and included newscast episodes and episodes of

the science show Quirks & Quarks. (Ex. 1012 at 4). With respect to Quirks &

Quarks, the text was used to describe "the content of each segment [] in enough

detail so that users could select those portions of the show that interested them and

download the appropriate audio file." (*Id.* at 5). Each individual episode or

segment was identified by a "link", i.e. a URL, that specified the location of the

media file representing it. (*Id.* at 4; *see also* Schmandt Decl. ¶¶ 65-67).

> f. **The CBC Radio Article discloses requirement (f):**
> *operating the apparatus to (1) receive a request for the*
> *updated compilation file at the predetermined URL, and*
> *(2) download the requested file to the client.*

Like GotW, the CBC Radio Article discloses that users would go to a

website to see new content available from the CBC. (Ex. 1012 at 3, 5). By visiting

a website, the user would download the HTML file located there. (Schmandt Decl.

¶¶ 65-67). This is simply the ordinary operation of a web server. (*Id.*).

> g. **The CBC Radio Article discloses requirement (g):**
> *operating the apparatus to (3) receive and respond to a*
> *request from the client for a media file identified by a*
> *URL in the compilation file.*

As explained above, the CBC Radio web page included URLs (displayed as

"links") for the media files representing each newscast episode or Quirks & Quarks

episode. After a listener's browser displayed the CBC Radio web page, the listener

clicked on the links to the media files in order to listen to the audio. (Schmandt

Decl. ¶ 67). The listener's browser then automatically transmitted a request for the media file identified by the URL in the clicked link to the web server, and the web server responded by downloading the file to the user. (*Id.* ¶ 67). The CBC Radio Article explains that this occurred thousands of times per day during the trial. (Ex. 1012 at 4).

2. Claims 32-35 are anticipated by the CBC Radio Article

The additional elements of claims 32-35 were all disclosed by the CBC Radio Article. The article specifically discussed using compressed audio files due to the limitations in bandwidth. (Ex. 1012 at 2). The article also discussed supplemental material, including text files. (*Id.* at 5). The article further discussed that media files would be described in the compilation file with text to allow a user to select which show she wanted to listen to. (*Id.* at 3). Finally, the article discussed a "greeting page," which an artisan understood to mean text describing the media available. (Schmandt Decl. ¶ 71). In sum, everything claimed in the dependent claims was disclosed in the CBC Radio Article.

3. Claim Chart showing CBC Radio Article anticipates Claims 31-35.

Claim Limitation	CBC Radio Article (Ex. 1012)
31. Apparatus for disseminating a series of episodes represented by media files via the Internet as said episodes become	The CBC Radio Article discloses an apparatus for disseminating media files over the Internet as the episodes become available. (*See, e.g.*, Ex. 1012 at 2 ("The trial to be described here is the first time that audio programs produced for traditional radio broadcasts have been made available on the Internet on a regular basis");

available, said apparatus comprising:	*id.* ("The purpose of this experimental trial was to determine: (1) if there was interest in, and demand for, regular radio programming distributed as digital audio files over the Internet, (2) if CBC was willing to regularly distribute programming in this format, and (3) what implications such a service would have for the corporation."); *id.* at 5 ("*Quirks & Quarks*, a science magazine show, was also regularly updated on the server…. there were no new *Quirks & Quarks* files on the server during the summer because the show was in hiatus, so this section of the trial was not updated during this time."); *see also* Schmandt Decl. ¶ 60).
one or more data storage servers,	A web server is disclosed and discussed in detail. *See, e.g.*, Ex. 1012 at 2-3 ("INSTALLING THE SERVER" and associated text)
one or more communication interfaces connected to the Internet for receiving requests received from remotely located client devices,	By allowing access to the website containing the media files, a communication interface is disclosed. (*See, e.g.*, Ex. 1012 at 2-3 ("The trial began in December 1993 when the first CBC Radio programs were prepared on a computer in the laboratory and made available through the Internet. The program files were made available via FTP, Gopher, and World Wide Web (WWW) using standard Internet server software. The trial was conducted on a server that was already well known as a source of Canadian government documents and a test site for a natural language information retrieval system"); *see also* Schmandt Decl. ¶¶ 60, 62-64).
and for responding to each given one of said requests by downloading a data file identified by a URL specified by said given one of said requests to the requesting client device,	The CBC Radio article discloses that listeners visited the CBC website on the world wide web. In doing so, a communication interface would respond by downloading an HTML file. (Ex. 1012 at 2 ("program files were made available via FTP, Gopher, and World Wide Web using standard Internet server software."); *id.* at 3 (users accessed documents by visiting a "well known" website); *see also* Schmandt Decl. ¶ 66).
one or more processors coupled to said one or	A server necessarily includes processors. (Ex. 1012 at 2-3 ("INSTALLING THE SERVER" and associated text);

more data storage servers and to said one or more communications interfaces for:	*see also* Schmandt Decl. ¶¶ 63-64). The CBC Radio Article also discloses how the processors were used in accordance with the claim as described below.
storing one or more media files representing each episode as said one or more media files become available, each of said one or more media files being stored at a storage location specified by a unique episode URL;	The CBC Radio Article describes how media files were stored on the server and made available to listeners over the web as they were broadcast. (Ex. 1012 at 3 ("The program files were made available via FTP, Gopher, and World Wide Web (WWW) using standard Internet server software"); *see also id.* ("The trial was conducted on a server that was already well known as a source of Canadian government documents and a test site for a natural language information retrieval system. This site is listed in many network directories as an interesting site to visit."); *id.* at 3 ("An FM radio receiver was installed in the laboratory to constantly monitor the CBC broadcasts. Using a 'cron' program, a Sun computer automatically recorded programs and transferred them to the server . . . the *Quirks & Quarks* science magazine show was recorded each week, broken down into its component parts, and made available on the server."); *id.* at 5 ("there were no new Quirks & Quarks files on the server during the summer because the show was in hiatus, so this section of the trial was not updated during this time"); *id.* ("The number of accesses per month for the *Quirks & Quarks* section of the trial is shown in Figure 4. This data represents all the transfer protocols (FTP, Gopher, & WWW) and all the file types (menus, text, images, and audio)"); Schmandt Decl. ¶¶ 63-64). By referring to "links", the Article disclosed that the files were at unique episode URLs. (Ex. 1012 at 4 ("WWW and Gopher users could still access the news programs, but the menus and links pointed to the FTP service."); Schmandt Decl. ¶ 67).
from time to time, as new episodes represented in said	As discussed above, the CBC Radio Article discloses that the media files were stored as they became available, and the website would be updated to reflect the availability of

series of episodes become available, storing an updated version of a compilation file in one of said one or more data storage servers at a storage location identified by a predetermined URL,	the new media files. (Ex. 1012 at 3 ("An FM radio receiver was installed in the laboratory to constantly monitor the CBC broadcasts. Using a 'cron' program, a Sun computer automatically recorded programs and transferred them to the server. Two newscasts (8:00 a.m. International and 5:00 p.m. Domestic, eastern times) were recorded each day and made available on the server immediately after the broadcast."); *id.* at 3 ("An FM radio receiver was installed in the laboratory to constantly monitor the CBC broadcasts. Using a 'cron' program, a Sun computer automatically recorded programs and transferred them to the server . . . . the *Quirks & Quarks* science magazine show was recorded each week, broken down into its component parts, and made available on the server."); *id.* at 7 ("Each show has a menu attached to it to describe the contents of the various parts."); *id.* at 5 ("there were no new Quirks & Quarks files on the server during the summer because the show was in hiatus, so this section of the trial was not updated during this time"); *see also* Schmandt Decl. ¶¶ 63-66).
said updated version of said compilation file containing attribute data describing currently available episodes in said series of episodes, said attribute data for each given one of said currently available episodes including displayable text describing said given one of said currently available episodes and	The CBC Radio Article discloses that newly available radio broadcasts were accompanied by text describing the episodes which allowed users to pick what they wanted to listen to. (Ex. 1012 at 3 ("These radio programs were made available 'on demand' in that users could request them from the server at any time. The larger programs were broken into segments that were described in accompanying text so users could select only the parts of the program that were of interest to them. The result was that users could listen to the programs when they wanted. They also had control over the order of the programs, and they could select material based on the content that interested them.") *see also* Schmandt Decl. ¶ 65).
one or more episode URLs specifying the storage locations of	The CBC Radio discloses that users could select "links" (i.e. URLs) in order to retrieve the media files. (Ex. 1012 at 4 ("WWW and Gopher users could still access the

one or more corresponding media files representing said given one of said episodes; and	news programs, but the menus and links pointed to the FTP service."); *id.* at 3 ("users could select only the parts of the program that were of interest to them."); *see also* Schmandt Decl. ¶¶ 24-31).
employing one of said one or more communication interfaces to:	As discussed above, the CBC Radio Article disclosed communication interfaces. (Ex. 1012 at 3 (discussing the server made available to the public); Schmandt Decl. ¶¶ 63-64).
(a) receive a request from a requesting client device for the updated version of said compilation file located at said predetermined URL;	The CBC Radio Article discloses that listeners visit a well-known website, and later the CBC radio website, to download the HTML (i.e. compilation) file. By disclosing this functionality, the article discloses a communication interface that receives request for an updated version of a compilation file located at the predetermined URL. (Ex. 1012 at 3 ("The program files were made available via FTP, Gopher, and World Wide Web (WWW) using standard Internet server software. The trial was conducted on a server that was already well known as a source of Canadian government documents and a test site for a natural language information retrieval system."); *id.* at 7 ("the CBC server can be reached at ftp://www.radio.cbc.ca or http://www.radio.cbc.ca/"); Schmandt Decl. ¶¶65-67).
(b) download said updated version of said compilation file to said requesting client device; and	The CBC Radio Article discloses a web server. In doing so, it discloses that the HTML (i.e. compilation) file would be downloaded to the client device when the page was visited. (Ex. 1012 at 3 ("The program files were made available via FTP, Gopher, and World Wide Web (WWW) using standard Internet server software. The trial was conducted on a server that was already well known as a source of Canadian government documents and a test site for a natural language information retrieval system."); *id.* at 7 ("the CBC server can be reached at ftp://www.radio.cbc.ca or http://www.radio.cbc.ca/"); Schmandt Decl. ¶¶65-67).
(c) thereafter receive and respond to a request from said	The CBC Radio Article discloses that the files were made available "on demand", i.e. after a request for the file, which, as already discussed, was located at URLs

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requesting client device for one or more media files identified by one or more corresponding episode URLs included in the attribute data contained in said updated version of said compilation files	includes in the attribute data of the compilation file. (Ex. 1012 at 3 ("These radio programs were made available 'on demand' in that users could request them from the server at any time. The larger programs were broken into segments that were described in accompanying text so users could select only the parts of the program that were of interest to them. The result was that users could listen to the programs when they wanted. They also had control over the order of the programs, and they could select material based on the content that interested them."); *id.* at 4 ("WWW and Gopher users could still access the news programs, but the menus and links pointed to the FTP service."); Schmandt Decl. ¶ 65).
32. The apparatus as set forth in claim 31 wherein at least some of said media files contain digital compressed audio recordings that may be reproduced in audible form by a requesting client device.	The CBC Radio Article discloses that the files were sampled at a lower rate in order to compress the files for easier distribution. (*See, e.g.*, Ex. 1012 at 2 ("Transmission of the uncompressed digital audio signal, in real time, would require a channel data rate of approximately 1,280 kilobits per second (Kbps) or 1.2 megabits per second (Mbps). Given that typical Internet link rates are often much less than 1.2 Mbps, and users' disk capacity is often limited, an audio format that uses a much lower frequency of sampling (8 kHz) and a much lower precision (8-bits mono) was chosen for this trial."); *see also id.* ("Faster Internet links and/or a compression system for the audio files would help."); *see also* Schmandt Decl. ¶ 68; *id.* ¶¶ 36-40 (audio compression).
33. The apparatus as set forth in claim 31 wherein at least some of said media files contain text data which may be displayed or reproduced in spoken audible form by a requesting client device.	The CBC Radio Article discloses that there were also text media files available for download from the web server. *See, e.g.*, Ex. 1012 at 5 ("The server also contained supplemental information about CBC programs and the trial Internet Service.")); Schmandt Decl. ¶ 69.

34. The apparatus set forth in claim 33 wherein said attribute data for each given one of said episodes further includes displayable text data describing said given one of said episodes.	The CBC Radio Article also discloses that episodes were described so that listeners could decide whether or not to download the episode (or segment of the episode). (Ex. 1012 at 3 ("The larger programs were broken into segments that were described in accompanying text so users could select only the parts of the program that were of interest to them."); *id.* at 7 ("Each show has a menu attached to it to describe the contents of the various parts"); *see also* Schmandt Decl. ¶ 65-67).
35. The audio program player set forth in claim 34 wherein said updated version of said compilation file further includes displayable text describing said series of episodes.	The CBC Radio Article discloses a "greeting page", which would inform users of the content available. (Ex. 1012 at 3 (noting the existence of a "greeting page"); *id.* at 7 ("Each show has a menu attached to it to describe the contents of the various parts"); Schmandt Decl. ¶¶66).

F.   Claims 31-35 are obvious based on the Internet CNN Newsroom

Internet CNN Newsroom was a master's thesis submitted to MIT in May 1995 and made available at the MIT library on August 10, 1995 (Ex. 1022 at cover), and is thus a prior art publication under 35 U.S.C. § 102. *See In re Hall*, 781 F.2d 897 (Fed. Cir. 1986). Claims 31-35 are obvious based on Internet CNN Newsroom, which included disclosures which would have made an "updated" compilation file obvious and a mere design choice, making obvious the feature determined to be lacking in the prior art references cited during the prosecution of the '504 patent.

1.   Claim 31 is obvious based on the Internet CNN Newsroom

Internet CNN Newsroom describes an apparatus that delivered episodic audio and video over the Internet to client devices located in schools. (Ex. 1022 at Abstract, 11; Schmandt Decl. ¶ 74). The system included processors coupled to a web server that stored media files in MPEG-1 format with interleaved video and audio. (*See* Ex. 1022 at 7, 22; Schmandt Decl. ¶¶ 77-78). Each MPEG-1 file corresponded to a particular news story, or "segment." (Ex. 1022 at 14; Schmandt Decl. ¶ 81). The processors ran software that automatically generated a compilation file (an HTML "Table of Contents") including HTML links to each segment, as well as a text summary of each segment's content. (Ex. 1022 at 13, Fig. 1, 17-19; Schmandt Decl. ¶¶ 77-80). Using a web browser, clients downloaded a new compilation file each day as the Newsroom was updated and used the provided links to fetch a desired segment by downloading its corresponding media file. (Ex. 1022 at 13, Fig. 1; Schmandt Decl. ¶¶ 78, 80). Thus Internet CNN Newsroom described all the elements of claim 31 except an *updated* compilation file. Instead the designers chose to create a new compilation file each day. But as discussed below, creating an updated compilation file would have been obvious and trivial change over the disclosures of Internet CNN Newsroom.

> a.　*Internet CNN Newsroom discloses requirement (a): an apparatus for disseminating, via the Internet, a series of episodes represented by media files.*

The NMIS Media Server and caching proxy servers disclosed in Internet CNN Newsroom are examples of the claimed "apparatus." (Ex. 1022 at 24, Fig. 6; Schmandt Decl. ¶ 76). An ordinary artisan understood in 1995 that such servers were used for "disseminating" data "via the Internet." (Schmandt Decl. ¶¶ 49, 76-77). The data disseminated by Internet CNN Newsroom included a series of CNN Newsroom news segments or other episodic content (including "other news programs, sitcoms, soap operas"). (Ex. 1022 at 79). These segments collectively represent the claimed "series of episodes." (Schmandt Decl. ¶ 78).

> **b.** ***Internet CNN Newsroom discloses requirement (b): the apparatus for disseminating episodes includes a processor, a communication interface, and a data storage server.***

The apparatus described in Internet CNN Newsroom includes one or more data storage servers, including the NMIS Data Server and proxy servers on which media files were stored. (Ex. 1022 at 15, describing the NMIS "server's 80 gigabytes of magnetic disk storage," as well as the possible future use of "hierarchical storage devices," such as a "terabyte automated tape array"; *see also id.* at 23; Schmandt Decl. ¶¶ 77-78). These servers were connected to the Internet. (Ex. 1022 at 7 ("The World-Wide-Web is used to present and deliver the digital video news magazine to end-users."); Schmandt Decl. ¶ 80). An ordinary artisan would have understood this to mean that the Internet CNN Newsroom web server necessarily contained the claimed "processor" and "communications interface" to

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process requests for media files and send the appropriate files to a remote user over the Internet. (Ex. 1022 at 20, Fig. 4; *id.* at 22 ("[T]he encoding server uses the ftp protocol to deliver the MPEG system files and closed-caption text files to our server. This means that results can be delivered to any host on the Internet supporting the ftp protocol.") (internal citation omitted); Schmandt Decl. ¶ 76).

            c.   *Internet CNN Newsroom disclosures render obvious requirement (c): a "compilation file" that is updated "from time to time as new episodes … become available."*

Internet CNN Newsroom describes automatically generating a "table of contents" file ("contents.html") for CNN Newsroom episodes. (Ex. 1022 at 17). This "contents.html" file is the claimed compilation file. Internet CNN Newsroom states that the disclosed compilation file was generated "each night" from the satellite broadcast of the latest CNN Newsroom content. (*Id.*). This nightly satellite broadcast contained the "new episodes" of CNN Newsroom segments that Internet CNN Newsroom incorporated into the "contents.html" file. The regular, automatic process of generating a new "contents.html" file renders an "updated" compilation file obvious. It would have been a trivial modification for an ordinary artisan to use the described system to create an updated table of contents HTML file to reflect that days' news and place it at the same location as the old file, instead of creating a different file at a different location. (Schmandt Decl. ¶ 75). Indeed, Internet CNN Newsroom itself discloses alternative uses for the system, including the

organization of other episodic content, such as sitcoms or soap operas, which due to their serialized nature would have logically been compiled at a consistent URL, meaning the compilation file would be "updated." (*Id.* ¶ 75).

> d.   *Internet CNN Newsroom discloses requirement (d): the compilation file and each media file are stored at "predetermined URLs" and "episode URLs," respectively*

The "contents.html" file described above included HTML links to video episodes in MPEG-1 format which were the claimed "media files." (Ex. 1022 at 18). Unique URLs would necessarily have been required to store compilation files and media files individually. (Schmandt Decl. ¶ 77). Internet CNN Newsroom also discloses an example of a table of contents file as it would have been presented by the WWW browser NCSA Mosaic in 1995. (Ex. 1022 at 13, Fig. 1; Schmandt Decl. ¶ 78). The example makes clear that "contents.html" was automatically stored at a URL structured in a predetermined way based upon the date of its episodic content, as follows:

"http://www.nmis.org/NewsInteractive/CNN/Newsroom/DATE/contents.html," where "DATE" represents the date of the episode. (*See* Ex. 1022 at 13; Schmandt Decl. ¶ 78). This regular structure would have permitted Internet CNN Newsroom users to access the daily compilation file at the claimed "predetermined URL." (Schmandt Decl. ¶ 78). To the extent this structure may nevertheless be considered insufficiently "predetermined" because the "contents.html" file is located at a new

(albeit predetermined) URL each day, as discussed above, it would have been a

trivial modification to place the URL at a consistent web address.

> e. *Internet CNN Newsroom discloses requirement (e): that the compilation file contains "attribute data," including "displayable text" and media file URLs for each episode.*

The "contents.html" compilation file in Internet CNN Newsroom was

automatically created each day and presented attribute data describing each

episode (in this case, the episodes were news segments). (Ex. 1022 at 13-14, 17-

19). The contents.html document included a "short summary" (*id.* at 14) of each

news segment and its respective run time, as well as other such "attribute data" as

is claimed. (*Id.* at 13, Fig. 1 (showing run times of 3:30 and 0:45 for particular

episodes)). The disclosed "icons" and/or "links" to each segment within the table

of contents html file would necessarily have directed users to the URL specifying

the storage location of the "media file" (in this case, an MPEG-1 file with

interleaved audio and video) for each episode. (Schmandt Decl. ¶ 78).

> f. *Internet CNN Newsroom discloses requirement (f): operating the apparatus to (1) receive a request for the updated compilation file at the predetermined URL, and (2) download the requested file to the client.*

As discussed above, Internet CNN Newsroom discloses a "compilation file"

(i.e. contents.html) that was created nightly to reflect new CNN Newsroom content,

but it would have been obvious to merely "update" a previous version. This file

was stored at a "predetermined URL" for the date of that broadcast, as claimed.

The system in Internet CNN Newsroom received the claimed "requests" for the "updated" contents.html file when end-users (i.e. "clients") navigated to the predetermined URL. The request was answered by making the compilation file available for download by the requesting client. (Schmandt Decl. ¶ 80).

g.   *Internet CNN Newsroom discloses requirement (g): operating the apparatus to (3) receive and respond to a request from the client for a media file identified by a URL in the compilation file.*

The Internet CNN Newsroom apparatus would have been similarly capable of "receiving and responding to request[s]" from the end-user (i.e. "client") for media files. End-users accessed episode videos, constituting the claimed "media files," by clicking HTML links—necessarily containing embedded URLs for the individual episodes—that were displayed in the contents.html compilation file. (*Id*. ¶ 81). The server responded to requests for individual media files by making them available for download by the requesting client. (*Id*. ¶¶ 80-81).

2.   *Claims 32-35 are obvious based on the Internet CNN Newsroom*

The dependent claims add nothing to the purported invention that was not disclosed in Internet CNN Newsroom, and thus are only obvious as they rely on Claim 31. The apparatus described in Internet CNN Newsroom delivered "audio and video interleaved in an MPEG system file." (Ex. 1022 at 22). The use of the MPEG-1 format necessarily required audio compression. (*See* Schmandt Decl. ¶

82). Thus Internet CNN Newsroom disclosed digital compressed audio recordings of claim 32.

As to claim 33, Internet CNN Newsroom described a Table of Contents file that included text descriptions of each episode that would be displayed by the client device. (Ex. 1022 at 13-14; Schmandt Decl. ¶ 83). Further, the system included the complete text of each program (obtained from closed caption text) and a link to that text was included in the Table of Contents file. A user could click on that link to display the complete text. (Ex. 1022 at 14; Schmandt Decl. ¶ 83). Thus Internet CNN Newsroom disclosed media files with text data that could be displayed.
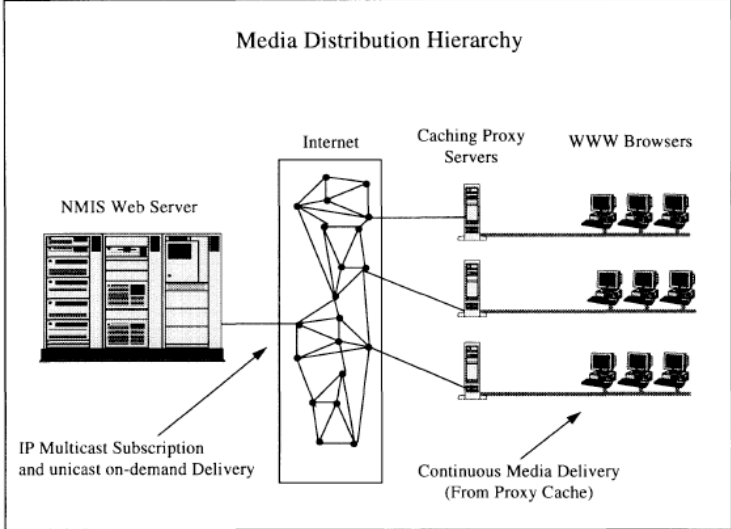
The elements of claim 34 are also disclosed by Internet CNN Newsroom. The Table of Contents file in Internet CNN Newsroom included summaries of each news segment. (Ex. 1022 at 13-14; Schmandt Decl. ¶ 84). These summaries were text data included in the Table of Contents displayable by the client device. Thus the addition of text to describe an episode was not new.
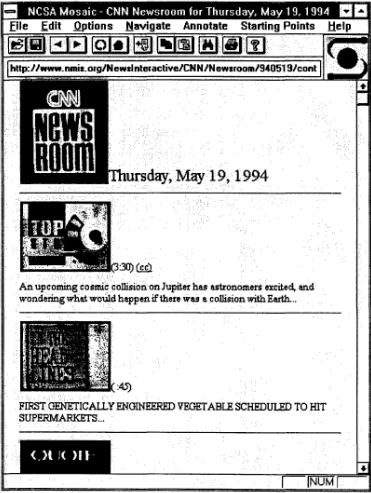
Finally, the Table of Contents file in Internet CNN Newsroom included a brief textual description of the particular news magazine. (Ex. 1022 at 13-14; Schmandt Decl. ¶ 85). Further, Internet CNN Newsroom explains that the apparatus could be extended to distribute any kind of program, including episodic content such as sitcoms or soap operas. (Ex. 1022 at 29; Schmandt Decl. ¶ 85). In
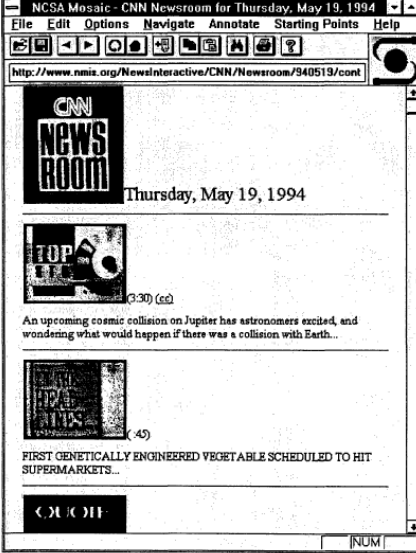
such a case, rather than describe the particular news magazine, the displayable text

at the beginning of the Table of Contents file would describe the series of episodes

disclosed in claim 35 (such as the sitcom or soap opera).

> ### 3. *Claim Chart Showing Internet CNN Newsroom renders obvious Claims 31-35.*
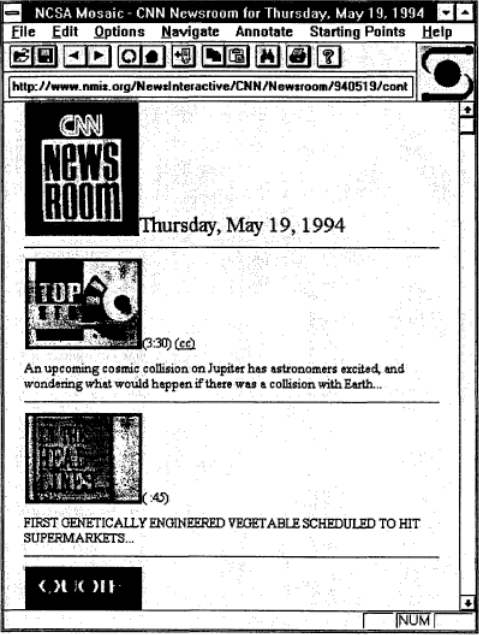
Claim Limitation	Internet CNN Newsroom (Ex. 1022)
31. Apparatus for disseminating a series of episodes represented by media files via the Internet as said episodes become available, said apparatus comprising:	An apparatus for disseminating media is disclosed. (Ex. 1022 at 8 (disclosing a "digital video news magazine distributed via the Internet."); *id.* at Fig. 6 and associated text (dissemination of media files via the Internet from an "NMIS Web server" to "WWW Browsers" through "Caching Proxy Servers")). Internet CNN Newsroom describes a system for distributing a "video magazine" via the Internet. (*Id.* at 13). The video broadcast each day by CNN Newsroom is broken out into segments that each "corresponds to a single news story." (*Id.* at 14). These segments were encoded in MPEG-1 media files. (*Id*. at 7). "[W]hen a user clicks on a link to a MPEG video, the entire MPEG file [] is downloaded onto their local hard disk." (*Id.* at 25). The same system could be used for "any other program for which users might want to be able to see past episodes (i.e., other news programs, sitcoms, soap operas ...." (*Id*. at 29). The processors ran software that automatically generated a compilation file (an HTML "Table of Contents") including HTML links to each segment, as well as a text summary of each segment's content. (*Id.* at 13,

	17-19). Thus the paper discloses that the apparatus disseminated episodes as they became available.
one or more data storage servers,	The paper discloses data servers being used. (Ex. 1022 at 15 (noting that the "capacity of the NMIS program news and information server [is] 80 gigabytes of magnetic disk storage"); *id.* at Fig. 6 and associated text).
one or more communication interfaces connected to the Internet for receiving requests received from remotely located client devices,	Internet CNN Newsroom describes a web server, e.g. the NMIS Web server, that necessarily included the claimed "communication interface" and received "requests" from "remotely located client devices" such as the client devices with WWW browsers. (Schmandt Decl. ¶ 76; *see* Ex. 1022 at 51 (content "sent over the Internet from the NMIS video archive to the customer site on demand")).
and for responding to each given one of said requests by downloading a data file identified by a URL specified by said given one of said requests to the requesting client device,	Internet CNN Newsroom describes how a client device could download material via the communication interface. (Ex. 1022 at 25 ("[W]hen a user clicks on a link to a MPEG video, the entire MPEG file [] is downloaded onto their local hard disk."); *see* Schmandt Decl. ¶¶ 77-78 (clicking on a link refers to HTML links; URLs are embedded in HTML links, so the relevant media files would have necessarily been stored at URLs, with a unique URL necessarily required to store files individually)).
one or more	The NMIS web server described in Internet CNN

processors coupled to said one or more data storage servers and to said one or more communications interfaces for:	Newsroom necessarily included the claimed "one or more processors," which were necessarily "coupled" to the "data storage server" and "communication interfaces." (Schmandt Decl. ¶¶ 76-78).
storing one or more media files representing each episode as said one or more media files become available, each of said one or more media files being stored at a storage location specified by a unique episode URL;	The paper describes how web pages were automatically generated and used to store files at unique episode URLs. (Ex. 1022 at 7 ("Custom software agents have been developed to automatically generate the WWW user interface for the service based on daily content."); *id.* at 22 ("When the video and closed caption text have been captured, the encoding server uses the ftp protocol[14] to deliver the MPEG system files and closed-caption text files to our server. This means that results can be delivered to any host on the Internet supporting the ftp protocol."); *also* Schmandt Decl. ¶ 77 (explaining that the links would have been understood to be at unique episode URLs)).
from time to time, as new episodes represented in said series of episodes become available, storing an updated version of a compilation file in one of said one or more data storage servers at a storage location identified by a predetermined URL,	The Table of Contents html file is the "compilation file." (*See* Schmandt Decl. ¶ 78). It is necessarily displayed at a location identified by a predetermined URL associated with that day's news magazine. (*Id.* at 78). For example, the compilation file dated May 19, 1995 would be stored at the following predetermined URL: /home/www/NewsInteractive/CNN/19940519. (Ex. 1022 at 13, Fig. 1 and 21, Fig. 5).

said updated version of said compilation file containing attribute data describing currently available episodes in said series of episodes, said attribute data for each given one of said currently available episodes including displayable text describing said given one of said currently available episodes, and one or more episode URLs specifying the storage locations of one or more corresponding media files representing said given one of said episodes, and		The Table of Contents (i.e. compilation file) in Figure 1 contained html that renders as shown in this image: The displayable text describes the episode (in this case, each episode or segment is a news story). The URL specifies the location of one of the media files representing the episode. (*See* Schmandt Decl. ¶¶ 24-33 (explaining
	links and HREF); *see also* Ex. 1022 at 25 ("when a user clicks on a link to a MPEG video, the entire MPEG file, which can be quite large, is downloaded onto their local hard disk"); *id.* at 18 ("The titles of the segments are correlated with icons….these icons are used to make buttons for each segment that display the video for the segment when selected.")).	
employing one of said one or more communication interfaces to:	As described above, the Internet CNN Newsroom web server included the claimed "communication interface." That interface was used in performing the steps that follow.	
(a) receive a request from a requesting client device for the updated version of said compilation	An Internet CNN Newsroom web server received from a "client device" the claimed "request … for the updated version of said compilation file" whenever it received a request for the Table of Contents html file (i.e. the claimed "updated … compilation file"). (Ex. 1022 at 13-14;	

file located at said predetermined URL;	Schmandt Decl. ¶ 80).
(b) download said updated version of said compilation file to said requesting client device; and	Whenever the Internet CNN Newsroom web server received a request as described in the previous step, it would respond by downloading the file representing the requested web page, (i.e. the claimed "updated … compilation file"). (Ex. 1022 at 14 ("The 'table of contents' for a particular day's program is a html document that consists of a short summary and an icon or title for each segment of the program."); Schmandt Decl. ¶ 80).
(c) thereafter receive and respond to a request from said requesting client device for one or more media files identified by one or more corresponding episode URLs included in the attribute data contained in said updated version of said compilation files.	The Internet CNN Newsroom web server would download a media file to the client when requested by the client when she "clicked" on a link. (Ex. 1022 at 25 ("[W]hen a user clicks on a link to a MPEG video, the entire MPEG file [] is downloaded onto their local hard disk."); *id.* at 18 ("The titles of the segments are correlated with icons….these icons are used to make buttons for each segment that display the video for the segment when selected."); Schmandt Decl. ¶¶77, 24-33).
32. The apparatus as set forth in claim 31 wherein at least some of said media files contain digital compressed audio recordings that may be reproduced in audible form by a requesting client device.	The Internet CNN Newsroom apparatus made media files, including audiovisual files with encoded audio, available on its server for requesting client devices. The encoded audio was compressed. (Ex. 1022 at 7 ("MPEG-1 video compression is performed using the Optibase MPEG Lab Suite system and a Sony Beta SP video deck."); *id.* at 21 ("Currently, the NEWSROOM audio is encoded at 192 Kbit/second, in monaural. The Optibase system encodes and stores audio and video interleaved in an MPEG system file. MPEG system files are defined in the ISO MPEG standards and provide complete cross-platform support for

	playback in a variety of consumer and computer video systems."); s*ee* Schmandt Decl. ¶ 82 (use of the MPEG-1 format necessarily involved audio compression)).
33. The apparatus as set forth in claim 31 wherein at least some of said media files contain text data which may be displayed or reproduced in spoken audible form by a requesting client device.	Internet CNN Newsroom disclosed that each segment in the video magazine was briefly described by text data displayed on the Table of Contents page, as shown in Figure 1, Ex. 1022 at 13: For example, in Figure 1 of the publication, one of the segments is described by the text: "First Genetically Engineered Vegetable Scheduled to Hit Supermarkets …." (*Id.*) Further, the apparatus described in Internet CNN Newsroom "also provides the text of each program … obtained from the closed caption text that is part of the video program … a link to this text is placed in the table of contents next to each story." (*Id.* at 14). This closed caption text is also a "media file" that may be displayed by a client device. (Schmandt Decl. ¶ 83).
34. The apparatus set forth in claim 33 wherein said attribute data for each given one of said episodes further includes displayable text data describing said given one of said	As described above, Internet CNN Newsroom's automatically generated Table of Contents web page contains the claimed "attribute data," including "displayable text" describing the episodes. (Ex. 1022 at 18). More specifically, there is displayable text describing each of the episodes (in this case, each individual news program), as required by claim 34. For example, Figure 1 of Internet CNN Newsroom shows displayable text for each of the segments that describes the segment. (*Id.* at 13; Schmandt Decl. ¶ 84).

episodes.	
35. The audio program player set forth in claim 34 wherein said updated version of said compilation file further includes displayable text describing said series of episodes.	As described above and in connection with claim 34, the Table of Contents web page is an "updated compilation file," and it contains "displayable text describing [the] series of episodes," as required by claim 35. For example, as shown above, it contains the title "CNN News Room Thursday, May 19, 1994." (Ex. 1022 at 13, Fig. 1; *see* Schmandt Decl. ¶ 85).

V.   Conclusion

In view of the foregoing, it is respectfully submitted that there is a reasonable likelihood that Petitioner would prevail with respect to at least one of the claims 31, 32, 33, 34, and 35 challenged in this petition. Accordingly, the Office is requested to grant this petition and to initiate an *inter partes* review. The Office should review claims 31, 32, 33, 34, and 35, find them unpatentable, and cancel the claims, rendering them null, void and otherwise unenforceable.

Dated: October 16, 2013   Respectfully submitted,

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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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Electronic Frontier Foundation
Petitioner,

v.

Personal Audio, LLC
Patent Owner

Patent No. 8,112,504 (Claims 31-35)
Issued: Feb. 7, 2012
Filed: Mar. 4, 2009
Inventors: James D. Logan, Daniel F. Goessling, Charles G. Call
Title: SYSTEM FOR DISSEMINATING MEDIA CONTENT REPRESENTING
EPISODES IN A SERIALIZED SEQUENCE

Petition for Review Filed: October 16, 2013

Certificate of Service

    I hereby certify, pursuant to 37 CFR sections 42.6 and 42.105, that a complete copy of the **PETITION FOR INTER PARTES REVIEW, EXHIBITS 1001 through 1030,** and all other associated documents are being served via Federal Express on the 16th day of October, 2013, the same day as the filing of the above-identified document in the United States Patent and Trademark Office/Patent Trial and Appeal Board, upon the patent owner:

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