

Petitioner Netflix Inc.'s Presentation

Netflix, Inc. v. Affinity Labs of Texas, LLC

IPR2016-01701 & IPR2017-00122

Patent Trial and Appeal Board

United States Patent and Trademark Office

Case IPR2016-01701

Patent 9,094,802 (“802 patent”)

Ground 1: Claims 1, 3-5, 14-17

Treyz and Fuller

Production Guide

Ground 2: Claims 9, 11, and 13

Treyz, Fuller, and Glaser

Ground 3: Claim 20

Treyz, Fuller, and Hild

Ground 4: Claims 1, 3-5, 14-18

Production Guide

Ground 5: Claim 20

Production Guide and Hild

US009094802B2

(12) **United States Patent**
White et al.

(10) **Patent No.:** US 9,094,802 B2
(45) **Date of Patent:** Jul. 28, 2015

(54) **SYSTEM AND METHOD TO COMMUNICATE TARGETED INFORMATION** (2013.01); *H04M 1/6091* (2013.01); *H04W 84/12* (2013.01); *H04W 88/06* (2013.01); *H04M 60/27* (2013.01); *H04M 1/7253* (2013.01); *H04M 1/7255* (2013.01); *H04M 1/72547* (2013.01); *H04M 1/72558* (2013.01); *H04M 1/72561* (2013.01); *H04M 2250/64* (2013.01)

(71) Applicant: **Affinity Labs of Texas, LLC**, Dripping Springs, TX (US)

(72) Inventors: **Russell W. White**, Austin, TX (US); **Kevin R. Imes**, Austin, TX (US)

(73) Assignee: **Affinity Labs of Texas, LLC**, Dripping Springs, TX (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **14/168,201**

(22) Filed: **Jan. 30, 2014**

(65) **Prior Publication Data**
US 2014/0207581 A1 Jul. 24, 2014

Related U.S. Application Data

(63) Continuation of application No. 13/854,232, filed on Apr. 1, 2013, now Pat. No. 8,688,085, which is a continuation of application No. 13/117,507, filed on May 27, 2011, now Pat. No. 8,521,140, which is a continuation of application No. 12,495,190, filed on Jun. 30, 2009, now Pat. No. 7,953,390, which is a continuation of application No. 12/015,320, filed on Jan. 16, 2008, now Pat. No. 7,778,595, which is a continuation of application No. 10,947,755, filed on Sep. 23, 2004, now Pat. No. 7,324,833, which is a continuation of application No. 09/537,812, filed on Mar. 28, 2000, now Pat. No. 7,187,947.

(51) **Int. Cl.**
H04L 29/08 (2006.01)
G06Q 30/02 (2012.01)
H04W 4/06 (2009.01)
(Continued)

(52) **U.S. CL.**
CPC *H04W 4/06* (2013.01); *G06F 3/0482* (2013.01); *G06F 3/0488* (2013.01); *G06F 3/04842* (2013.01); *G06Q 30/0267* (2013.01); *G06Q 30/0269* (2013.01); *G11B 31/02* (2013.01); *H04L 65/60* (2013.01); *H04L 67/02*

(58) **Field of Classification Search**
CPC *G06Q 30/0267*; *G06Q 30/0269*; *G11B 31/02*; *H04M 1/6091*; *H04W 84/12*; *H04W 4/06*; *H04W 88/06*; *G06F 3/04842*; *G06F 3/0488*; *G06F 3/0482*; *H04L 65/60*; *H04L 67/02*
See application file for complete search history.

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Primary Examiner — Kashif Siddiqui

(57) **ABSTRACT**
A method for targeted advertising is disclosed. The method includes accessing at least one piece of demographic information associated with a user of a portable device, selecting an advertisement to be delivered to the user based at least in part on the demographic information, and initiating communication of a version of the advertisement configured for presentation at the portable device.

20 Claims, 8 Drawing Sheets

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Case IPR2017-00122

Patent 9,444,868 (“868 patent”)

Ground 1: Claims 1-12, 14, 15, and 17-20

Treyz and Fuller

Ground 2: Claims 13 and 16

Treyz, Fuller, and Glaser

US009444868B2

(12) **United States Patent**
White et al.

(10) **Patent No.:** **US 9,444,868 B2**
(45) **Date of Patent:** **Sep. 13, 2016**

(54) **SYSTEM TO COMMUNICATE MEDIA**

(71) Applicant: **Affinity Labs of Texas, L.L.C.**, Dripping Springs, TX (US)

(72) Inventors: **Russell W. White**, Austin, TX (US); **Kevin R. Imes**, Austin, TX (US)

(73) Assignee: **Affinity Labs of Texas, L.L.C.**, Austin, TX (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **14/747,002**

(22) Filed: **Jun. 23, 2015**

(65) **Prior Publication Data**
US 2015-0312309 A1 Oct. 29, 2015

Related U.S. Application Data

(63) Continuation of application No. 14/168,201, filed on Jan. 30, 2014, now Pat. No. 9,094,802, which is a continuation of application No. 13/854,232, filed on Apr. 1, 2013, now Pat. No. 8,688,085, which is a (Continued)

(51) **Int. Cl.**
H04W 8/22 (2009.01)
H04W 4/02 (2009.01)
H04L 29/06 (2006.01)
H04L 29/08 (2006.01)

(52) **U.S. Cl.**
CPC **H04L 65/602** (2013.01); **H04L 65/607** (2013.01); **H04L 67/02** (2013.01); **H04L 67/1095** (2013.01)

(58) **Field of Classification Search**
CPC G06Q 30/0267; G06Q 30/0269; G11B 31/02; H04M 1/6091; H04W 84/12;

(56) **References Cited**
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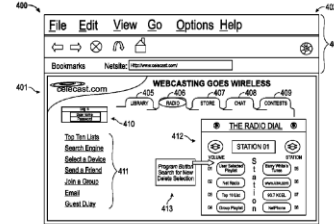
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Primary Examiner – Kashif Siddiqui

(57) **ABSTRACT**
A system for communicating media is disclosed. Such a system may include, for example, a media broken into a plurality of independent segment files that may represent sequential portions of the media. One of the segment files can be encoded to have a format that is different than the encoded format of another one of the segment files. The formats may be chosen to allow outputting of information in the segments at different rates. A list may include network addresses for the segment files, and a content delivery system may be deployed to distribute media content to remotely located requesting devices by sending the segment files in response to requests for the segment files.

20 Claims, 8 Drawing Sheets



Netflix 1001 - Page 1

Prior challenges to Affinity's patents before the PTAB and Federal Circuit



- Prior Board Proceedings. The Board invalidated claims from five related patents:
 - claims 1, 2, 5-8, and 10 of U.S. Patent No. 8,359,007 in light of *Treyz and Fuller* in IPR2014-00407 and -00408;
 - claims 16, 19 and 20 of U.S. Patent No. 7,953,390 in IPR2014-00209 and -00212;
 - claims 1-3 and 5-14 of U.S. Patent No. 8,532,641 in IPR2014-01181, -01182 and -01184; and
 - claims 1-27, 36-42, and 45-46 of U.S. Patent No. 7,325,833 and all claims of U.S. Patent No. 7,440,772 in separate pre-AIA *ex parte* and *inter partes* reexamination proceedings, Nos. 90/010,333, 95/001,223, 95/001,264 and 95/001,266.
- Appellate Proceedings. The Federal Circuit has affirmed all of the determinations from the Board:
 - For example, IPR2014-00407 and -00408: upheld by the Federal Circuit in a *per curiam* decision
 - *Affinity Labs of Texas, LLC v. Samsung Elecs. Co. Ltd*, 669 F. App'x 576 (Fed. Cir. 2016)
 - See also *Affinity Labs of Texas, LLC v. Samsung Elecs. Co.*, 639 F. App'x 652 (Fed. Cir. 2016) (*per curiam* re '390 patent); *Affinity Labs of Texas, LLC v. Samsung Elecs. Co.*, 680 F. App'x 1016 (Fed. Cir. 2017) (*per curiam* re '641 patent); *In re Affinity Labs of Texas, LLC*, 856 F.3d 883, 886 (Fed. Cir. 2017) (affirmance re '833 patent); *In re Affinity Labs of Texas, LLC*, 856 F.3d 902, 904 (Fed. Cir. 2017) (affirmance re '772 patent)



Overview

- **Claim Construction**
 - The Board properly adopted its prior construction of an available media, which was affirmed by the Federal Circuit
 - The Board properly adopted its view of “portions” of available media for the analogous term “segments”
- **IPR2016-01701 – U.S. Patent No. 9,094,802**
 - Ground 1: Claims 1, 3-5, 14-17 are obvious in view of Treyz and Fuller
 - Ground 2: Claims 9, 11, and 13 are obvious in view of Treyz, Fuller, and Glaser
 - Ground 3: Claim 20 is obvious in view of Treyz, Fuller and Hild
 - Ground 4: Claims 1, 3-5, 14-18 are obvious in view of the Production Guide
 - Ground 5: Claim 20 is obvious in view the Production Guide and Hild
- **IPR2017-00122 – U.S. Patent No. 9.444.868**
 - Ground 1: Claims 1-12, 14, 15, and 17-20 are obvious in view of Treyz and Fuller
 - Ground 2: Claims 13 and 16 are obvious in view of Treyz, Fuller, and Glaser
- **Patent Owner’s Constitutional Challenge is improperly raised in this forum and should be rejected**

Claim Construction: Available Media

- In the Institution Decisions, Board determined that the term “**available media**” was only term that requires construction.
- The Board adopted a construction identical to its prior construction from a related proceeding, IPR2014-00407 (“the 407 IPR”):
 - “[W]e defined ‘**an available media**’ in IPR2014-0407 to include ‘**parts of content accessible from a source of audio, video, and/or textual information,**’ but noted that the term is ‘**not limited to a single file, song, or video, and may encompass, at a minimum, a collection of audio or video files.**’”

‘1701 IPR Institution Decision at 6, (Paper 9)
 - “In IPR2014-0407 we determined that the term ‘**available media**’ is ‘**not limited to a single file, song, or video,**’ and is broad enough to include, at a minimum, a ‘**collection of audio or video files.**’”

‘122 IPR Institution Decision at 6, (Paper 10)



Claim Construction: Available Media (cont'd)

- Adopting its prior construction, the Board reasoned:
 - “Because [the] patents all derive from the same parent application and share many common terms, we must interpret the claims consistently across all asserted patents.”

Citing *NTP, Inc. v. Research in Motion, Ltd.*, 418 F.3d 1282, 1293 (Fed. Cir. 2005)

'407 IPR ('007 Patent)	'802 Patent	'868 Patent
a collection of instructions ... to request a list of network addresses for a plurality of portions of an available media , to request delivery of a first portion of the available media ... , and to request delivery of a second portion of the available media	organizing an available media into a plurality of independent segment files to facilitate delivery; *** receiving an HTTP communication that indicates a desire to access the available media	a network-based communication system operable: ... to receive an HTTP communication from the remotely located requesting device that indicates a desire to access the available media

Claim Construction: Segment File (cont'd)

- The Board did not expressly construe “segment files,” but noted that the term is **“broad enough to encompass an individual song, video, or station contained within a broader collection of audio or video files.”**

‘122 IPR Institution Decision at 11, (Paper 10)

- “[T]he term ‘an available media’ may include multiple stations on a playlist and the term ‘segment,’ which is generally defined as ‘[e]ach of the parts into which something is or may be divided,’ **is, on this record, broad enough to include individual stations on a playlist.**”

‘1701 IPR Institution Decision at 9-10, (Paper 9)

Claim Construction: Segment File (cont'd)

- The Board previously construed “portions of an available media” in the same way:
 - “parts of the content accessible from a source of audio, video, and/or textual information, such as songs or stations in a playlist or parts of an Internet radio broadcast.”

‘407 IPR Institution Decision at 6, (Paper 15), ‘408 IPR Institution Decision at 6, (Paper 14)

Final Written Decision at 6 (Paper 48)



Claim Construction (cont'd)

Patent Owner Claim Construction Argument 1:

“Netflix cannot meet its burden to show obviousness where it and its expert must speculate in order to construe the challenged claims and compare them to the prior art”

‘1701 Preliminary Response at 13; ‘1701 Patent Owner Response at 19

‘122 Preliminary Response at 13; ‘122 Patent Owner Response at 19

The Board already rejected this argument:

- “[E]ven if Petitioner and its declarant could not identify the precise contours of certain claim limitations before the District Court, **they provide detailed citations and arguments in this proceeding explaining where each limitation of the challenged claims is disclosed in the recited prior art.**”

‘1701 Institution Decision at 7

‘122 Institution Decision at 7



Claim Construction (cont'd)


Patent Owner Claim Construction Argument 2:

“Netflix and its expert have alleged that several terms ... are subject to § 112 ¶ 6, yet Netflix did not identify any function or structure as required by the Board’s rules for this petition.”

‘1701 Preliminary Response at 13-14; ‘1701 Patent Owner Response at 19

‘122 Preliminary Response at 13; ‘122 Patent Owner Response at 19

Again, the Board rejected this argument:



“[N]either party in this proceeding contends that any limitations [of the '802 or '868 patents], other than “storage medium for storing files in the '802 patent], **are in means plus function format.**”

‘1701 Institution Decision at 7; ‘122 Institution Decision at 7

Case IPR2016-01701

Patent 9,094,802 (“802 patent”)

Ground 1: Claims 1, 3-5, 14-17

Treyz and Fuller

Production Guide

Ground 2: Claims 9, 11, and 13

Treyz, Fuller, and Glaser

Ground 3: Claim 20

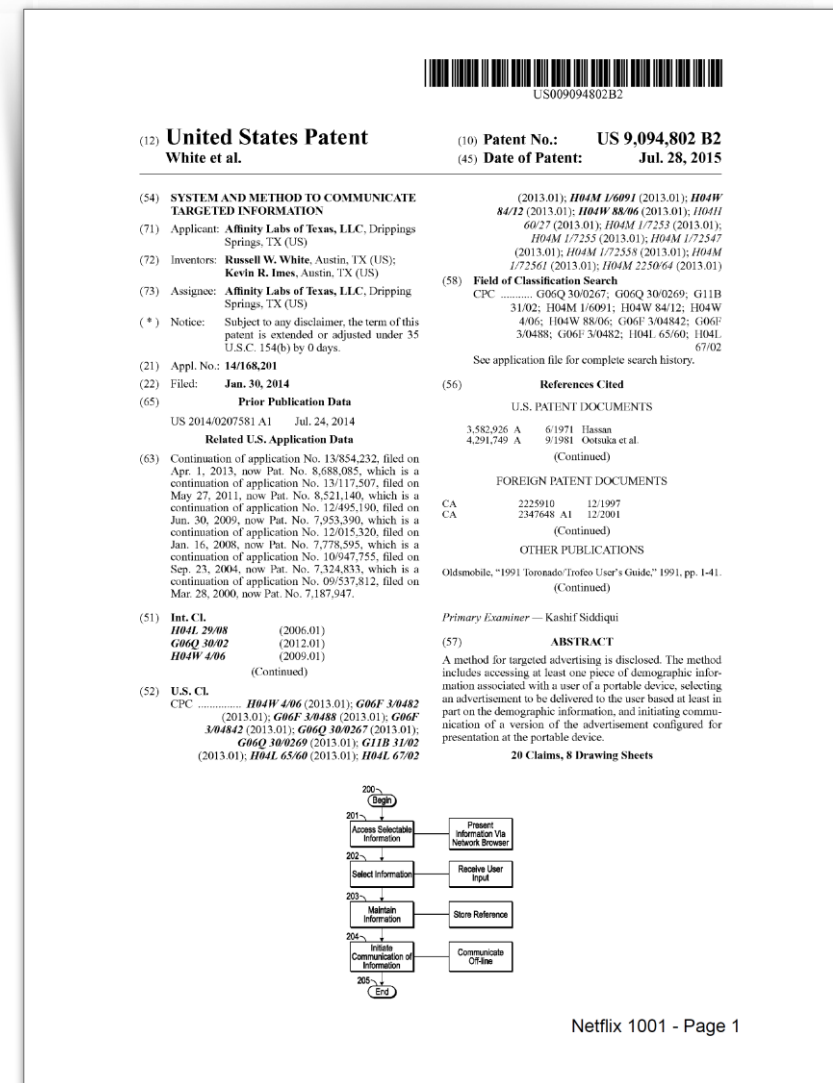
Treyz, Fuller, and Hild

Ground 4: Claims 1, 3-5, 14-18

Production Guide

Ground 5: Claim 20

Production Guide and Hild



Ground 1

Claims 1, 3-5, 14-17 in view of Treyz and Fuller

'802 Patent – Claim 1

	1. A method to deliver media, comprising:
[1.1]	organizing an available media into a plurality of independent segment files to facilitate delivery;
[1.2]	formatting a given segment to facilitate an outputting of the given segment at a given rate;
[1.3]	formatting a different segment to facilitate an outputting of the different segment at a different rate, wherein the different rate is slower than the given rate;
[1.4]	generating a list that includes an address for each of the plurality of independent segment files;
[1.5]	receiving an HTTP communication that indicates a desire to access the available media;
[1.6]	sending the list in response to receiving the HTTP communication;
[1.7]	sending the given segment; and
[1.8]	sending the different segment.

Treyz-Fuller Discloses Claim Element 1.1

[1.1] **organizing an available media into a plurality of independent segment files to facilitate delivery;**

The **audio from these sources may be combined to form customized channels made up of portions of the various sources**. For example, if the user enjoys country music, classical music, and sports news, these types of content may be combined (e.g., from Internet radio channels) into a custom channel. **The user may schedule how portions or segments of the audio from various sources are to be played**. For example, the user may select the content and the duration for desired audio segments. Customized content may be provided to the user by the audio device based on the user's interests.

Ex. 1015 (Treyz) at 3:45-55.

The real-time server 140 can perform compression, and other manipulations of the data, to reduce the processing burden on the web server 131. For example, in some embodiments of the invention, **the real-time server 140 receives digitized video data and compresses that data into JPEG images. These JPEG images are sequenced digital frames of video. Similarly, for the audio data, the real-time server 140 breaks the audio information into one-half second time periods of audio data** (other embodiments use other time periods). These one-half second time periods of data are stored in the shared memory 135. The real-time server 140 can also compress the audio information into one of a number of various compressed audio signals (e.g., G.711 and/or G.723 audio compression formats). In some embodiments of the invention, the real-time server can broadcast audio and video from multiple sources to multiple clients.

Ex. 1016 (Fuller) at 6:22-38; 9:14-30, 49-63.

The Board Already Found That Treyz-Fuller Discloses “Segment Files”

Patent Owner Argument 1:

“The availability of different Internet radio links a user can select in Treyz does not comprise links or network locations to **segments** of the same available media at different output rates as required by the claims”

Patent Owner Response at 26 (emphasis in original)

Preliminary Response at 20

The Board already rejected this argument:



- “[T]he term **‘an available media’ may include multiple stations on a playlist** and the term **‘segment,’** which is generally defined as ‘[e]ach of the parts into which something is or may be divided,’ **is,** on this record, **broad enough to include individual stations on a playlist.**”

Institution Decision at 10

The Board Already Found That Treyz-Fuller Discloses “Segment Files”

Patent Owner Argument 2:

“Netflix failed to offer a construction for these limitations that would encompass the scope Netflix seeks to define in the prior art”

Patent Owner Response at 26 (emphasis in original)

Preliminary Response at 20

BUT, the Board rejected this when it adopted its prior claim constructions.

Institution Decision at 6, 10

And, notably, those prior claim constructions already have been affirmed by the Federal Circuit.

Affinity Labs of Texas, LLC v. Samsung Elecs. Co. Ltd, 669 F. App'x 576 (Fed. Cir. 2016) (per curiam)



Unrebutted Expert Testimony: Treyz-Fuller Discloses “Segment Files”



Dr. Nader Mir
Petitioner's Expert

“Treyz discloses this limitation as demonstrated by the below quotations.”

‘The audio from these sources may be combined to form customized channels made up of portions of the various sources. For example, if the user enjoys country music, classical music, and sports news, these types of content may be combined (e.g., from Internet radio channels) into a custom channel. The user may schedule how portions or segments of the audio from various sources are to be played. For example, the user may select the content and the duration for desired audio segments. Customized content may be provided to the user by the audio device based on the user’s interests.’

“Additionally, Fuller describes breaking up files into discrete time period or frames, and compressing them at different rates.”

‘The real-time server 140 can perform compression, and other manipulations of the data, to reduce the processing burden on the web server 131. For example, in some embodiments of the invention, the real-time server 140 receives digitized video data and compresses that data into JPEG images. These JPEG images are sequenced digital frames of video. Similarly, for the audio data, the real-time server 140 breaks the audio information into one-half second time periods of audio data (other embodiments use other time periods).’

Treyz-Fuller discloses claim elements 1.2 and 1.3

[1.2]	formatting a given segment to facilitate an outputting of the given segment at a given rate;
[1.3]	formatting a different segment to facilitate an outputting of the different segment at a different rate, wherein the different rate is slower than the given rate;

If it is the case that the audio, or the video, information is not being received by the client 112 at a sufficient data rate, the corresponding Java applet, in some embodiments of the invention, can **request a different rate of transmission**. The Java applet can **request a lower rate** corresponding to a lower audio or video signal, that will more appropriately match the bandwidth availability of the client 112.

E.g., Ex. 1016 (Fuller) at 10:11-17

[T]he real-time server 140 prepares the audio data by breaking the audio information into time periods. This audio information is also compressed into **various sets of compressed data corresponding to different audio rates**.

E.g., Ex. 1016 (Fuller) at 6:22-38

Treyz-Fuller discloses claim element 1.4

[1.4] generating a list that includes an address for each of the plurality of independent segment files;

“...menus may be presented on a display panel that allow the user to select Internet radio content based on geographic region, language of the content, or type of content (e.g., adult contemporary, alternative, blues, classical, news, sports, police radio, etc.). **Internet radio stations may also be listed** alphabetically or using any other suitable organization scheme. These **organizational arrangements** may be used to assist the user in **locating audio content from a variety of sources**, including ... **non-Internet digital radio services provided over a broadband communications network, Internet radio, downloaded audio files, etc.**”

E.g., Ex. 1015 (Treyz) at 17:25-43

“**The user may set up the stations** for the clock radio that the user is interested in by clicking on **links for stations** that the user is interested in or by otherwise selecting the **proper Internet addresses for the desired stations.**”

E.g., Ex. 1015 (Treyz) at 5:32-36

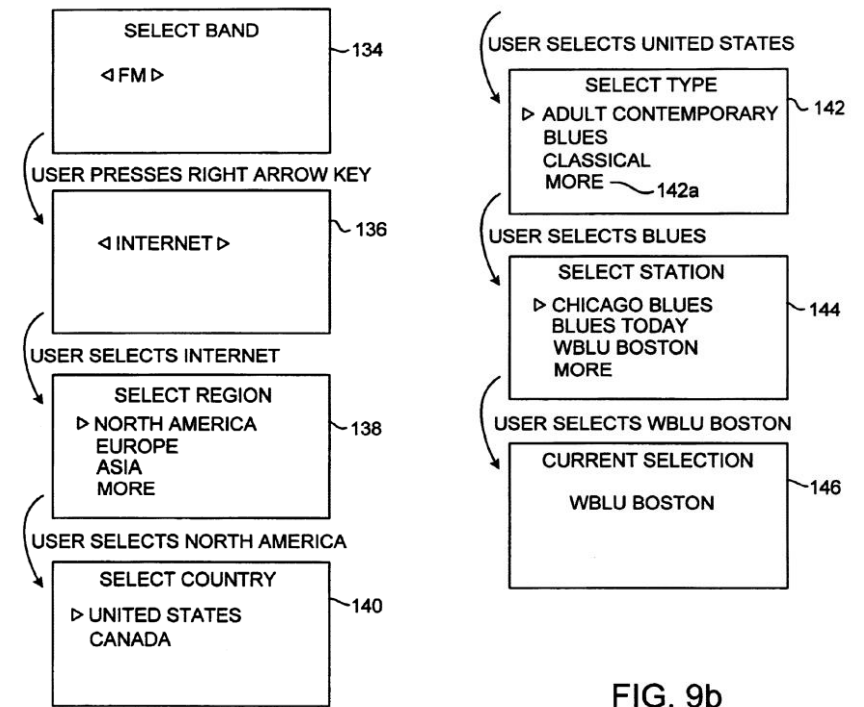


FIG. 9a

FIG. 9b

Patent Owner Argument 2:

“Netflix failed to properly compare the claims to the prior art and instead relied on an overly-broad meaning of the claims and incorporation by reference” for the “list or message that contains an address or network location for segments of an available media, such as a song or video, which is available at different output rates” limitation in claim 1 (and 9 and 14).”

Patent Owner’s Response at 22-25, Paper No. 15; see *also* Preliminary Response at 16-19

The Board has found that Treyz-Fuller discloses a “list”

The Board rejected Patent Owner’s argument:

“Petitioner, in addition to generally citing to the Board’s prior decisions in IPR2014-00407 and IPR2014-00408, provides multiple citations to Treyz in support of its assertion that a list of links for Internet radio stations are generated and sent to the user.”

Institution Decision at 12 (Paper 9) (see also Petition at 23; Ex. 1015 5:32-36, 12:25-43)

As has the Federal Circuit, which affirmed the following Board decisions:

‘407 IPR Final Written Decision at 22 (Paper 48): Holding claim 1 of the ‘007 patent containing the materially similar limitation for “a list of network addresses for a plurality of portions of an available media” unpatentable in view of Treyz-Fuller.

‘408 IPR Institution Decision at 9, 12 (Paper 14): Adopting Petitioner’s argument “that Treyz utilizes a web browser to receive a listing of network locations for available Internet radio stations” and instituting review of claim 1.

Institution Decision at 10



Unrebutted Expert Testimony: Treyz-Fuller discloses a “list”



Dr. Nader Mir
Petitioner's Expert

- “This limitation is disclosed in Treyz as demonstrated by the below quotations.”
 - “With a digital tuning arrangement, up and down keys . . . may be used to allow the user to tune to different stations. Because the number of available Internet radio stations may be large (e.g., in the thousands), various layered menus may be used to assist the user in locating a station of interest. For example, menus may be presented on a display panel that allow the user to select Internet radio content based on geographic region, language of the content, or type of content (e.g., adult contemporary, alternative, blues, classical, news, sports, police radio, etc.). *Internet radio stations may also be listed alphabetically or using any other suitable organization scheme. These organizational arrangements may be used to assist the user in locating audio content from a variety of sources, including ... non-Internet digital radio services provided over a broadband communications network, Internet radio, downloaded audio files, etc.*” Ex. 1015 (Treyz) at 17:25-43.
 - “The user may set up the stations for the clock radio that the user is interested in by clicking on links for stations that the user is interested in or by otherwise selecting the proper Internet addresses for the desired stations.” Ex. 1015 (Treyz) at 5:32-36.
- Ex. 1007 (Mir Declaration) at ¶ 85 (pp. 39-42)

Treyz-Fuller discloses claim elements 1.5 and 1.6

[1.5] receiving an HTTP communication that indicates a desire to access the available media;

At block 210, the **client 112 initiates an HTTP request** from the Web server 131. This could be the result of the browser 102 receiving and displaying an HTML (hypertext markup language) page including a link that will initiate streaming audio and video.

E.g., Ex. 1016 (Fuller) at 8:30-34

[1.6] sending the list in response to receiving the HTTP communication;

As an example, alarm clock radio 12 may allow a user to set up 25 favorite stations. These stations may include, for example, Internet radio stations. Because hundreds or thousands of stations are available, **a web page including information on various available stations may be used to help the user select the desired stations.** An illustrative web page 216 is shown in FIG. 13.

The diagram shows a web page 216 with four input fields:

- ENTER PRODUCT ID 218
- TELEPHONE NO. 220
- TIME TO DOWNLOAD 222
- CHANNEL SELECTION 224

E.g., Ex. 1015 (Treyz) at 23:11-16; Fig 13

Treyz-Fuller discloses claim elements 1.7 and 1.8

[1.7] sending the given segment; and

[1.8] sending the different segment.

If it is the case that **the audio, or the video, information is not being received by the client 112 at a sufficient data rate**, the corresponding Java applet, in some embodiments of the invention, **can request a different rate of transmission**. The Java applet **can request a lower rate** corresponding to a lower audio or video signal, that will more appropriately match the bandwidth availability of the client 112.

E.g., Ex. 1016 (Fuller) at 10:11-17



The Board Previously Found Similar Claim Elements Unpatentable in the '407 IPR Final Written Decision that the Federal Circuit Affirmed



'802 Patent	'407 IPR ('007 Patent)
<p>“organizing an available media into a plurality of independent segment files to facilitate delivery” Ex. 1011 at 18:31-32 *** “a list that includes an address for each of the plurality of independent segment files.” Ex. 1001 at 18:38-39.</p>	<p>“a collection of instructions stored in the non-volatile memory and operable to direct the cellular telephone to request a list of network addresses for a plurality of portions of an available media” Ex. 1011 at 18:27-30.</p>
<p>“outputting of a given segment at a given rate ... sending the given segment ...” Ex. 1001 at 18:33-34, 44.</p>	<p>“delivery of a first portion of the available media such that the first portion is delivered at a first communication rate ...” Ex. 1011 at 18:30-32.</p>
<p>“outputting of the different segment at different rate, wherein the different rate is slower than the given rate ... sending the different segment.” Ex. 1001 at 18:35-37, 45.</p>	<p>“delivery of a second portion of the available media such that the second portion is delivered at a second communication rate that is different than the first communication rate.” Ex. 1011 at 18:33-36.</p>
'802 Patent	'407 IPR ('007 Patent) – Claim 2
<p>“receiving an HTTP communication that indicates a desire to access available media ... sending the list in response to receiving the HTTP communication ...” Ex. 1001 at 18:40-41.</p>	<p>“The system of claim 1, wherein the browser utilizes the hyper text transfer protocol (http) to facilitate access the available media.” Ex. 1011 at 18:37-39.</p>

Treyz-Fuller discloses claim element 3

3. The method of claim 1, further comprising maintaining the plurality of independent segment files in a storage medium means for storing files, wherein formatting the different segment comprises compressing the different segment into a format that is configured to facilitate an outputting at a playback device at or near the different rate.

“storage medium means for storing files”

The real-time server 140 uses the data received by the various modules and stores portions of that data in the shared memory 135, after some manipulation of the data. The shared memory 135 is accessed by the Web server 131.

“compressing”

The real-time server 140 takes each video frame from the video module 144, or the video proxy module 148, and compresses that information into a JPEG image.

“format ... configured to facilitate an outputting”

In any case, what is important is that the real-time server 140 receives digital video information in a format that it can use (example formats include, JPEG, MPEG, GIF, and AVI).

E.g., Ex. 1016 (Fuller) at 5:3-7; 9:51-54; 5:55-58

Treyz-Fuller discloses claim element 4

4. The method of claim 3, wherein the available media is a video and the HTTP communication was received from an electronic device comprising an internal battery, a recharging circuit for the internal battery, a display, and an application stored at the electronic device to output the video on the display.

If desired, text may be converted to audio using voice synthesizing arrangements. If alarm clock radio 12 has a display, text, graphics, and video may be displayed on the display.

Rear panel 204 may also have a battery compartment and battery 208. Battery backup or capacitor backup may be used to prevent alarm clock radio 12 from losing its settings or data when the power delivered by cord 206 is interrupted.

Such audio devices may have displays.

E.g., Ex. 1015 (Treyz) at 19:64-20:3; 8:40; 9:3-5; 8:32-40.

See also supra claim elements 1.5 and 1.6 (HTTP Communication)

Unrebutted Expert Testimony: Treyz-Fuller discloses claim 4's limitations



Dr. Nader Mir
Petitioner's Expert

“Treyz expressly discloses media that is video: ‘News information and the like may be received from news servers such as news server 22. This information and information from other sources maybe in the form of text, audio and video.’”

“Additionally, Treyz describes that the device can playback video: ‘If alarm clock radio 12 has a display, text, graphics and video may be displayed on the display’, indicating the presence of an application stored at the electronic device to output video on the display.”

“Treyz also mentions that the describes system can be operated on a personal computer (Ex. 1015 at 8:34-40), and one of ordinary skill in the art would understand that term to include laptops, which are widely known by a person of ordinary skill in the art as including batteries, charging circuits and displays.”

- Ex. 1007 (Mir Declaration) at ¶ 85 (pp. 47-48) (citing Ex. 1015 (Treyz) at 8:63-66, 8:34, 40, 9:3-5), Ex. 1035)

Treyz-Fuller discloses claim 5

5. The method of claim 1, further comprising providing a link to the available media on a website.

In this example, the user is using a standard PC with a standard Netscape Communicator™ 4.0 browser application. FIG. 3 includes a **browser window 302** With a cursor positioned over a **transmission selection link 304**. The **transmission selection link 304** corresponds to a request for transmission of streaming audio and video data.

E.g., Ex. 1016 (Fuller) at Fig. 3, 10:40-55

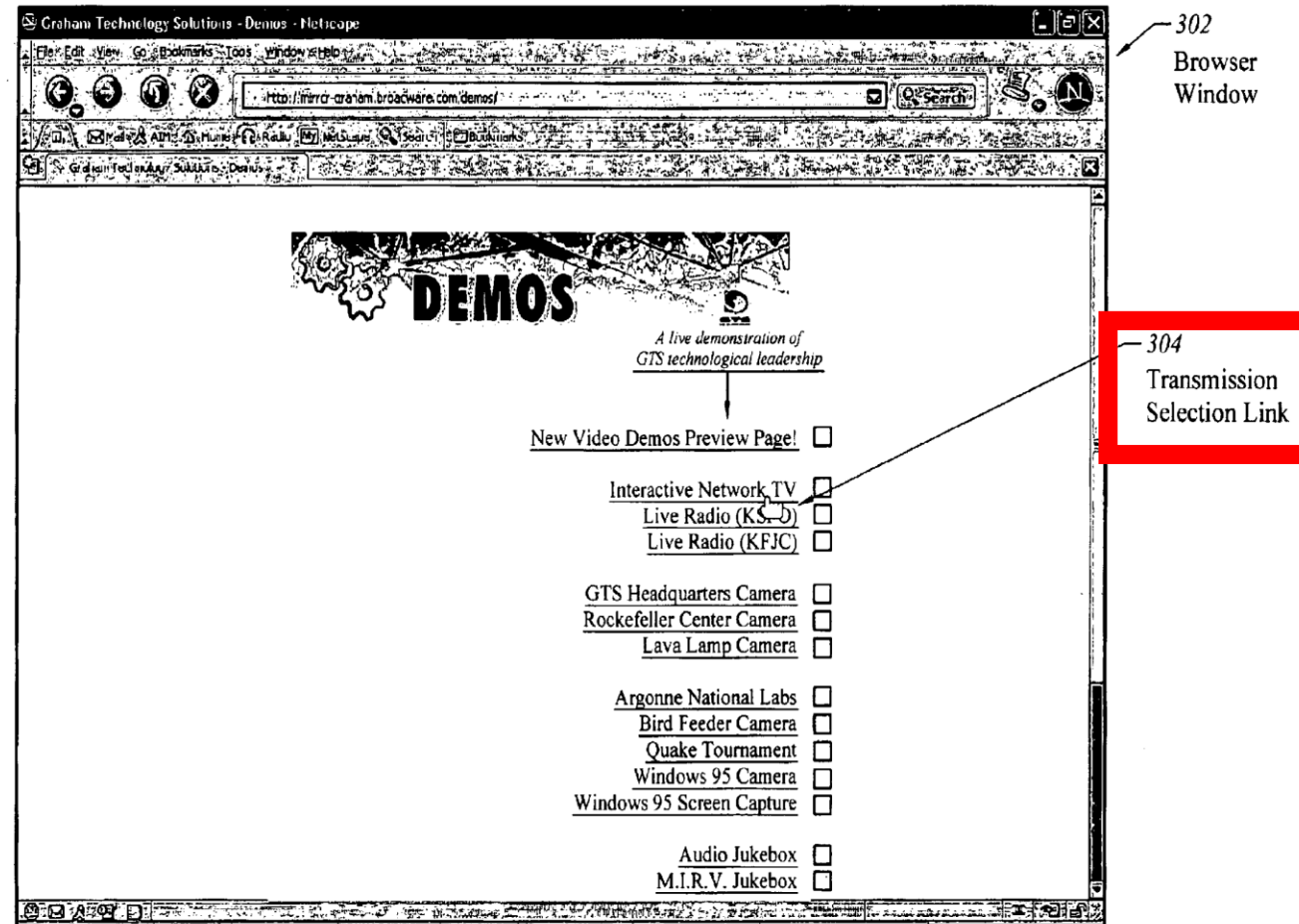


FIG. 3

'802 Patent – Claim 14

	14. A system that facilitates delivery of media, comprising:
[14.1]	a media available for delivery as a series of segments, wherein at least a given one of the segments is configured to allow delivery to a requesting device via a network link capable of communicating information at a first rate and at least another segment is configured to allow delivery to the requesting device via a link capable of communicating information at a different rate;
[14.2]	a media playlist for the available media that includes a network location for a file representing the given one of the segments and a different network location for a different file representing the other segment; and
[14.3]	a delivery resource configured to respond to a plurality of file requests by transmitting information to the requesting device in a manner that facilitates a continuous outputting of the available media by the requesting device.

Treyz-Fuller disclose the previously identified limitations of Claim Elements 14.1 & 14.2

	14. A system that facilitates delivery of media, comprising:
[14.1]	a media available for delivery as a series of segments, wherein at least a given one of the segments is configured to allow delivery to a requesting device via a network link capable of communicating information at a first rate and at least another segment is configured to allow delivery to the requesting device via a link capable of communicating information at a different rate;
[14.2]	a media playlist for the available media that includes a network location for a file representing the given one of the segments and a different network location for a different file representing the other segment; and
[14.3]	a delivery resource configured to respond to a plurality of file requests by transmitting information to the requesting device in a manner that facilitates a continuous outputting of the available media by the requesting device.

See *supra* claim elements 1.1 (segments of media), 1.2 and 1.7 (segment configured for delivery at a first rate), 1.3 and 1.8 (segment configured for delivery at a second rate) and 1.4 (media playlist with locations for file segments)

Treyz-Fuller disclose claim element 14.3

[14.3]

a delivery resource configured to respond to a plurality of file requests by transmitting information to the requesting device in a manner that facilitates a continuous outputting of the available media by the requesting device.

If it is the case that the audio, or the video, information is not being received by the client 112 at a sufficient data rate, **the corresponding Java applet, in some embodiments of the invention, can request a different rate of transmission.** The Java applet can request a lower rate corresponding to a lower audio or video signal, **that will more appropriately match the bandwidth availability of the client 112.**

E.g., Ex. 1016 (Fuller) at 10:11-17

The result of these blocks is that **multiple frames of video information is displayed in the video display 103.** Thus, the user has **the perception of a video display at the client 112 ...** Thus, the client 112 will have a **continuous audio signal being presented to the user.**

E.g., Ex. 1016 (Fuller) at 10:3-10

Unrebutted Expert Testimony: Treyz-Fuller discloses “continuous playback”



Dr. Nader Mir
Petitioner's Expert

“Fuller expressly describes requesting and sending portions of files with higher or lower rates, depending upon network conditions.”

“Fuller also describes this as facilitating continuous playback to the user. ‘The result of these blocks is that multiple frames of video information is displayed in the video display 103. Thus, the user has the perception of a video display at the client **112** . . . Thus, the client **112** will have a continuous audio signal being presented to the user.’”

- Ex. 1007 (Mir Declaration) at ¶ 85 (pp. 56) (citing Ex. 1016 (Fuller) at 10:3-17)

Treyz-Fuller disclose claim element 15

15. The system of claim 14, wherein the first rate is slower than the different rate.

“[A] user is allowed to modify the video rate, shown in frames per second, by selecting one of the video rate selectors ... a set of audio rate selectors 512 allow the user to select a higher or lower quality audio signal.”

E.g., Ex. 1016 (Fuller) at 10:56-11:6

Treyz-Fuller disclose claim element 16

16. The system of claim 14, wherein the given one of the segments has a format that is designed to be output at or below a given rate measured in bits per second and the format is a way in which the given one of the segments is configured to allow delivery to the requesting device via the network link.

In any case, what is important is that the real-time server 140 receives digital video information in a format that it can use (example formats include, JPEG, MPEG, GIF, and AVI)

E.g., Ex. 1016 (Fuller) at 5:55-58

Different Web server 131 processes will require **different audio rates** depending on their connections to their respective clients. By storing the information corresponding to the different audio rates into the shared memory 135, **each process can access the desired audio rate data from the shared memory 135.**

E.g., Ex. 1016 (Fuller) at 9:23-28

The transmission selection link **304** corresponds to a request for transmission of streaming audio and video data The user is presented with a number of connection speeds to select from. **The user selects the speed associated with his or her connection speed** to the Internet **185**. In this example, the user is selecting a T1 or better connection speed.

E.g., Ex. 1016 (Fuller) at 10:45-54

Treyz-Fuller disclose claim element 17

17. The system of claim 16, wherein the delivery resource comprises a formatting engine that puts the given one of the segments into the format.

[T]he **real-time server 140 prepares the audio data** by breaking the audio information into time periods. This **audio information is also compressed into various sets of compressed data corresponding to different audio rates.**

E.g., Ex. 1016 (Fuller) at 9:15-19

See also supra claim elements 1.2 and 1.3 (formatting segments for delivery at given rates)

Ground 2
Claims 9, 11, and 13 in view of Treyz and Fuller

'802 Patent – Claim 9

9. A streaming method comprising:	
[9.1]	receiving an HTTP communication at a media delivery resource that comprises a request for a listing of network locations for segments of available media, further wherein the request is from a device having a buffer, a non-volatile memory, and a collection of instructions stored in the non-volatile memory that are operable: (1) to request a media segment with a formatting that allows the media segment to be delivered from the media delivery resource at a given rate, (2) to consider an amount of information stored in the buffer, and (3) to request a different segment with a different formatting that allows the different segment to be delivered from the media delivery resource at a different rate, wherein the at least two rates are rates at which a streaming media can be output;
[9.2]	sending a message comprising a plurality of network locations for different segments of the available media;
[9.3]	sending a requested segment of the available media, wherein the requested segment has a compression format that allows for use at the given rate; and
[9.4]	sending a different requested segment of the available media, wherein the different requested segment has a different compression format.

Treyz-Fuller disclose the previously identified limitations of Claim Elements 9

	9. A streaming method comprising:
[9.1]	receiving an HTTP communication at a media delivery resource that comprises a request for a listing of network locations for segments of available media, further wherein the request is from a device having a buffer, a non-volatile memory, and a collection of instructions stored in the non-volatile memory that are operable: (1) to request a media segment with a formatting that allows the media segment to be delivered from the media delivery resource at a given rate, (2) to consider an amount of information stored in the buffer, and (3) to request a different segment with a different formatting that allows the different segment to be delivered from the media delivery resource at a different rate, wherein the at least two rates are rates at which a streaming media can be output;
[9.2]	sending a message comprising a plurality of network locations for different segments of the available media;
[9.3]	sending a requested segment of the available media, wherein the requested segment has a compression format that allows for use at the given rate; and
[9.4]	sending a different requested segment of the available media, wherein the different requested segment has a different compression format.

See supra claim Elements 1.2 & 1.3 (formatting segments), 1.4, (messaging and lists), 1.5 & 1.6 (HTTP communications and requests), 1.7 & 1.8 (sending segments) and 3 (segment compression format).

Treyz-Fuller in combination with Glaser disclose the remainder of claim element 9

[9.1]

... further wherein the request is from a device having a buffer, a non-volatile memory, and a collection of instructions stored in the non-volatile memory that are operable: ... (2) to consider an amount of information stored in the buffer, ...

Memory devices such as solid-state memory circuits, hard drives (e.g., miniature hard drives), or any other suitable storage arrangement may be used.

Streaming audio that is received in real time may be buffered using local memory to improve its quality.

E.g., Ex. 1015 (Treyz) at 1:47-51, 58-60

[T]he CPU **310** within the subscriber unit **110** constantly monitors the memory allocated within the buffer 315

E.g., Ex. 1017 (Glaser) at 16:6-8

[T]he subscriber PC **110** continuously monitors the status of the buffers 315 to determine if the buffers 315 typically remain at or near maximum capacity.

E.g., Ex. 1017 (Glaser) at 21:5-8

Treyz-Fuller in combination with Glaser disclose claim element 11

11. The method of claim 9, wherein the compression format has an outputting characteristic that is measured in bits per second.

In any case, what is important is that the real-time server 140 receives digital video information in a format that it can use (example formats include, JPEG, **MPEG**, GIF, and AVI)

e.g., Ex. 1016 (Fuller) at 5:55-58

Different Web server 131 processes will require **different audio rates** depending on their connections to their respective clients. By storing the information corresponding to the different audio rates into the shared memory 135, **each process can access the desired audio rate data from the shared memory** 135.

e.g., Ex. 1016 (Fuller) at 9:23-28

The transmission selection link 304 corresponds to a request for transmission of streaming audio and video data The user is presented with a number of connection speeds to select from. **The user selects the speed associated with his or her connection speed** to the Internet 185. In this example, the user is selecting a T1 or better connection speed.

e.g., Ex. 1016 (Fuller) at 10:45-54

Treyz-Fuller in combination with Glaser disclose claim element 13

13. The method of claim 9, further comprising: organizing the available media into a plurality of segments to facilitate delivery; saving each of the plurality of segments such that each can be individually retrieved; and periodically sending a requested next segment to the device.

The real-time server 140 can perform compression, and other manipulations of the data, to reduce the processing burden on the web server 131. For example, in some embodiments of the invention, the real-time server 140 receives digitized video data and compresses that data into JPEG images. These JPEG images are sequenced digital frames of video. Similarly, for the audio data, the real-time server 140 breaks the audio information into one-half second time periods of audio data (other embodiments use other time periods). These one-half second time periods of data are stored in the shared memory 135. The real-time server 140 can also compress the audio information into one of a number of various compressed audio signals (e.g., G.711 and/or G.723 audio compression formats). In some embodiments of the invention, the real-time server can broadcast audio and video from multiple sources to multiple clients.

Ex. 1016 (Fuller) at 6:22-38.

If it is the case that the audio, or the video, information is not being received by the client 112 at a sufficient data rate, the corresponding Java applet, in some embodiments of the invention, can request a different rate of transmission. The Java applet can request a lower rate corresponding to a lower audio or video signal, that will more appropriately match the bandwidth availability of the client 112.

Ex. 1016 (Fuller) at 10:11-17.

See also supra claim elements 1.1 (organizing into segments), 1.7 & 1.8 (sending segments) for further discussion of Treyz-Fuller's disclosure of the limitations found in claim element 13

Ground 3
Claim 20 in view of Treyz, Fuller, and Hild

Treyz-Fuller in combination with Hild disclose claim element 20

20. The system of claim 14, wherein the delivery resource is configured to recognize if a requesting device is a mobile device necessitating a delivery path that comprises at least one wireless link.

Communication paths such as 42, 48, and 50 may be wireless communication paths.

Ex. 1015 (Treyz) at 9:66-67; *see also id.* at 9:67-10:14

A suitable communications link for such a mobile audio device may be based, for example, on cellular modem technology or other suitable wireless technology.

Ex. 1015 (Treyz) at 7:13-16

New standards are emerging to allow devices to describe their user interface capabilities, installed software, user preferences, and network connectivity in more abstract ways. The Composite Capability and Preference Profiles (CC/PP) specification published by the World-Wide-Web Consortium (W3C) describes a framework for providing this information within each HTTP request. The Wireless Application Protocol (WAP) Forum has defined a similar method (called User Agent Profiles, or UAProf) for describing this information within each Wireless Session Protocol (WSP) request. (The WSP is a form of HTTP that has been optimized for use over low-bandwidth wireless networks.)

Ex. 1018 (Hild) at 1:62-2:6

Unrebutted Expert Testimony: Treyz-Fuller in combination with Hild discloses Claim Element 20



Dr. Nader Mir
Petitioner's Expert

“In the late ‘90s, wireless devices frequently used WAP protocol for the application layer. The wireless datagram protocol, which is part of the WAP protocol suite, function to make every data network look like UDP. When a server receives a request from a wireless device a header in the HTTP communication indicates it has been received from a wireless device, e.g. includes X-wap-profile or similar. This method is referred to as the User Agent Profile or UAPProf and was available before the '802 patent.”

“A person of ordinary skill in the art would have understood that wireless devices using the WAP protocol included smart phones or PDAs and were therefore mobile devices. Numerous patents describe WAP gateways which convert WAP protocol to other internet protocols.”

- Ex. 1007 (Mir Declaration) at ¶ 85 (pp. 59-60)

Ground 4
Claims 1, 3-5, 14-18 in view of the Production Guide

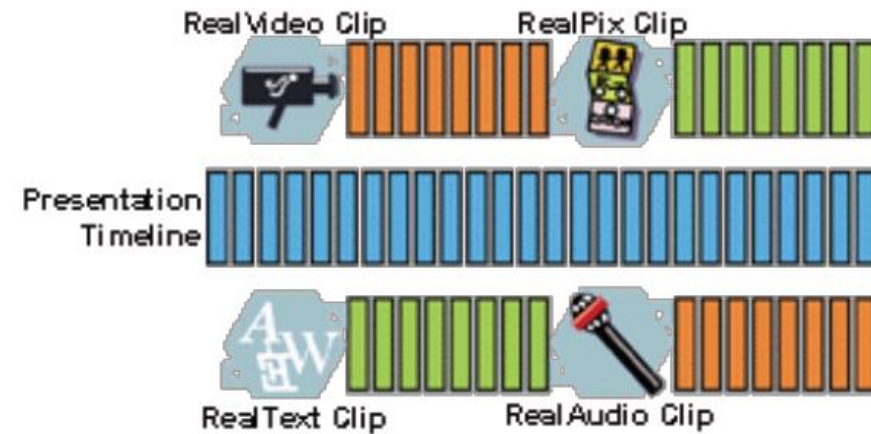
The Production Guide discloses Claim Element 1.1

[1.1] organizing an available media into a plurality of independent segment files to facilitate delivery;

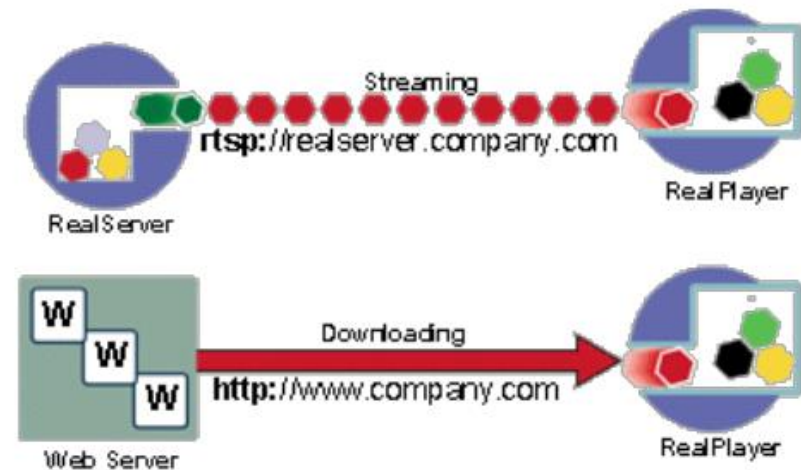
When you stream multimedia, though, **clips** have timelines and must flow smoothly once they've started to play back. . . . When you stream multimedia, therefore, it's important that your presentation **keeps clips synchronized**.

e.g., Ex. 1026 (Production Guide) at 14

Clip Timelines Coordinate with an Presentation Timeline



e.g., Ex. 1026 (Production Guide) at 14



e.g., Ex. 1026 (Production Guide) at 18

The Production Guide discloses claim elements 1.2 and 1.3

[1.2]	formatting a given segment to facilitate an outputting of the given segment at a given rate;
[1.3]	formatting a different segment to facilitate an outputting of the different segment at a different rate, wherein the different rate is slower than the given rate;

To provide good content for users with **slower connections** and great content for those with **faster connections** . . . you create **separate clips** for each bandwidth target and let RealPlayer choose which set of clips to play. . . . You don't need separate links for modems and ISDN connections, for example.

e.g., Ex. 1026 (Production Guide) at 25

A **SMIL file** can also list presentation choices for **different bandwidths**. RealPlayer then chooses which clips to receive based on its available bandwidth. You can thereby **support multiple connection speeds** through a single hypertext link, rather than separate links for modem users, ISDN users, T1 users, and so on.

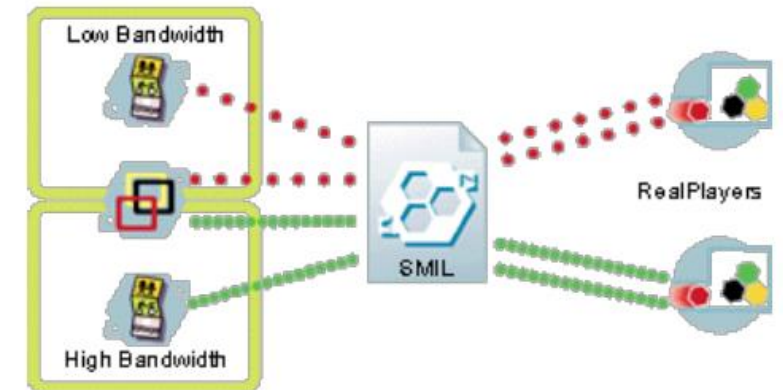
e.g., Ex. 1026 (Production Guide) at 16

The Production Guide discloses claim element 1.4

[1.4] generating a list that includes an address for each of the plurality of independent segment files;

When you assemble your presentation, you use a **SMIL file** to designate a bandwidth connection for each of the different groups. When a user clicks your Web page link, **RealPlayer receives the SMIL file** and chooses which clip group to play based on its own connection speed.

e.g., Ex. 1026 (Production Guide) at 26



When a RealSystem G2 presentation streams over a network, the media clips reside on RealServer. Each source clip's src attribute gives the **clip's URL**:

```
<audio src="rtsp://realserver.company.com:554/audio/first.rm" />
```

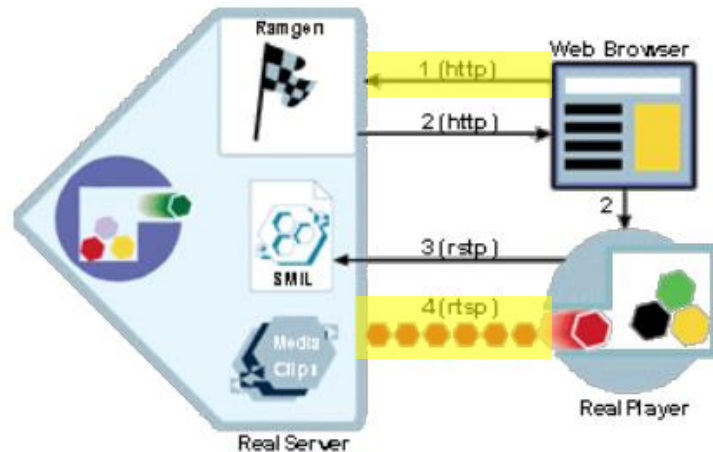
e.g., Ex. 1026 (Production Guide) at 52

The Production Guide discloses claim elements 1.5 and 1.6

- | | |
|-------|--|
| [1.5] | receiving an HTTP communication that indicates a desire to access the available media; |
| [1.6] | sending the list in response to receiving the HTTP communication; |

Your Web page URL simply points to your media clip or SMIL file on RealServer

Requesting a Presentation from RealServer using Ramgen



1. Using the HTTP protocol, the Web browser requests the SMIL file from RealServer. The URL includes a parameter that invokes Ramgen.
2. RealServer's response causes the Web browser to launch RealPlayer as a helper application and give it the **URL to the SMIL file**.
3. RealPlayer requests the SMIL file from RealServer using the RTSP protocol.
4. With the information in the SMIL file, RealPlayer requests and receives the streaming media clips.

e.g., Ex. 1026 (Production Guide) at 93

The Production Guide discloses claim elements 1.7 and 1.8

[1.7] sending the given segment; and

[1.8] sending the different segment.

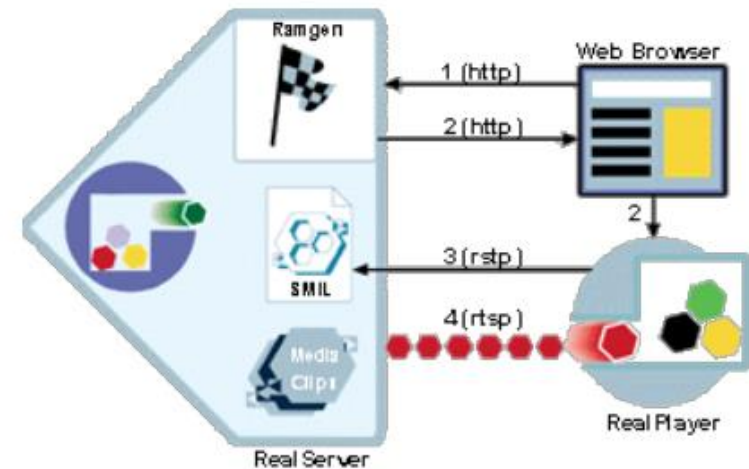
RealPlayer **requests and receives** the streaming media **clips**.

e.g., Ex. 1026 (Production Guide) at 93

If your presentation uses clips other than RealAudio or RealVideo, you can create **multiple versions of the clips** for different bandwidths. . . . RealPlayer chooses which clip to receive based on its connection speed and the SMIL file's bandwidth parameters.

e.g., Ex. 1026 (Production Guide) at 26

Requesting a Presentation from RealServer using Ramgen



The Board Already Found That The '802 Patent Does Not Claim Midstream Switching

Patent Owner Argument:

“Netflix ignores portions of the Production Guide that show the challenged claims are not found within the reference” because “the SMIL file only chooses an initial bitrate and does not allow switching mainstream”

Patent Owner Response at 28-29 (emphasis in original)

Preliminary Response at 23

The Board already rejected this argument:

- “Affinity’s argument regarding the SMIL file is based on **reading limitations into the claims that are neither recited nor required.**”

Institution Decision at 21



Unrebutted Expert Testimony: Production Guide discloses the delivery of streaming media as claimed in the '802 patent



Dr. Nader Mir
Petitioner's Expert

“The Production Guide discloses generating a list (SMIL File with a list of presentation choices) that includes an address (clip source tag) for each of the plurality of the independent segment files (clips)”

“The Production Guide discloses sending the list (contained within the SMIL file) in response to the HTTP communication.”

“The Production Guide discloses sending a given segment (higher connection rate encoding)” and “The Production Guide discloses sending a different segment (lower bandwidth encoding).”

- “RealPlayer requests and receives the streaming media clips.” Ex. 1026 (Production Guide) at 93.

“A person of ordinary skill in the art would recognize that each of the available encodings in the RealPlayer system must be organized into a plurality of independent segment files to permit streaming media delivery.”

- Ex. 1007 (Mir Declaration) at ¶ 92 (pp. 64-73)

The Production Guide discloses claim element 3

3. The method of claim 1, further comprising maintaining the plurality of independent segment files in a storage medium means for storing files, wherein formatting the different segment comprises compressing the different segment into a format that is configured to facilitate an outputting at a playback device at or near the different rate.

When your presentation is complete, you move the streaming media clips and SMIL file to RealServer G2 or a Web server for delivery.

e.g., Ex. 1026 (Production Guide) at 17

Formats such as RealAudio and Real Video are highly compressed formats optimized for network streaming.

e.g., Ex. 1026 (Production Guide) at 11

Unrebutted Expert Testimony: Production Guide discloses Claim Element 3



Dr. Nader Mir
Petitioner's Expert

“The Production Guide discloses maintaining the plurality of independent segment files (**clips**) in a storage medium for storing files (**server**) and formatting the different segment comprises compressing the different segment into a format that is configured to facilitate an outputting at a playback device at or near the different rate (**compressed formats optimized for network streaming**).”

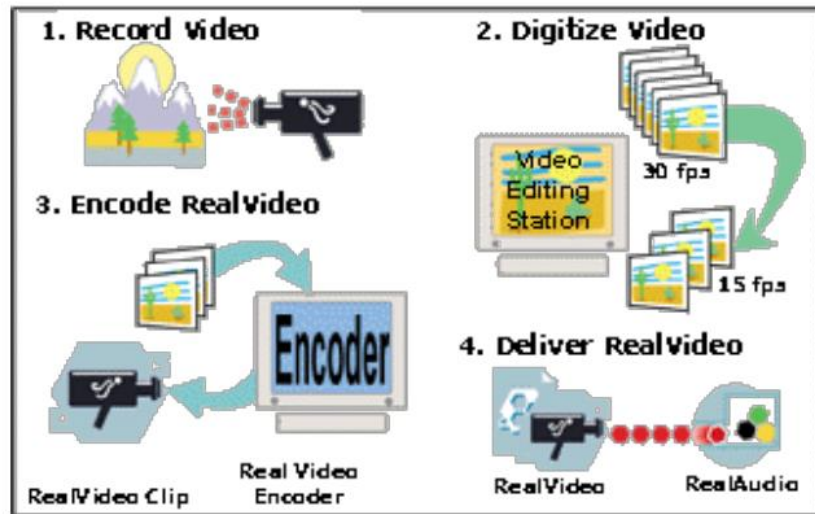
“A person of ordinary skill in the art would recognize that the server would store the clips on a ROM device, minidisk, or other memory device.”

- Ex. 1007 (Mir Declaration) at ¶ 92 (pp. 74-75)

The Production Guide discloses claim element 4

4. The method of claim 3, wherein the available media is a video and the HTTP communication was received from an electronic device comprising an internal battery, a recharging circuit for the internal battery, a display, and an application stored at the electronic device to output the video on the display.

Creating RealVideo Clips



e.g., Ex. 1026 (Production Guide) at 26

“For Windows computers, the RealPlayer G2 (client) required a computer with the following specs:

- Pentium 120
- 16 MB RAM
- 30 MB free on your hard disk
- Windows compatible 16-bit sound card
- Modem or other Internet connection - 14.4 minimum for audio, 28.8 minimum for video

Common laptop computers included satisfied those requirements, and included Li-Ion rechargeable batteries.”



Ex. 1007 (Mir Declaration) at ¶ 92

• See also *supra* claim elements 1.5 and 1.6 (HTTP communications)

The Production Guide discloses claim element 5

5. The method of claim 1, further comprising providing a link to the available media on a website.

Linking your Web Page to RealServer

With your clips on RealServer, link your Web page to the SMIL file with an HTML hypertext link that looks like this:

```
<a href="http://realserver.company.com:8080/ramgen/sample.smil">...</a>
```

If the presentation plays back directly in the Web page through RealPlayer's Netscape plug-in, the URL occurs within an <EMBED> or <OBJECT> tag and looks like this:

```
SRC="http://realserver.company.com:8080/ramgen/sample.smil?embed"
```

Ex. 1026 (Production Guide) at 93

'802 Patent – Claim 14

	14. A system that facilitates delivery of media, comprising:
[14.1]	a media available for delivery as a series of segments, wherein at least a given one of the segments is configured to allow delivery to a requesting device via a network link capable of communicating information at a first rate and at least another segment is configured to allow delivery to the requesting device via a link capable of communicating information at a different rate;
[14.2]	a media playlist for the available media that includes a network location for a file representing the given one of the segments and a different network location for a different file representing the other segment; and
[14.3]	a delivery resource configured to respond to a plurality of file requests by transmitting information to the requesting device in a manner that facilitates a continuous outputting of the available media by the requesting device.

The Production Guide disclose the previously identified limitations of Claim Elements 14.1 & 14.2

	14. A system that facilitates delivery of media, comprising:
[14.1]	a media available for delivery as a series of segments, wherein at least a given one of the segments is configured to allow delivery to a requesting device via a network link capable of communicating information at a first rate and at least another segment is configured to allow delivery to the requesting device via a link capable of communicating information at a different rate;
[14.2]	a media playlist for the available media that includes a network location for a file representing the given one of the segments and a different network location for a different file representing the other segment; and
[14.3]	a delivery resource configured to respond to a plurality of file requests by transmitting information to the requesting device in a manner that facilitates a continuous outputting of the available media by the requesting device.

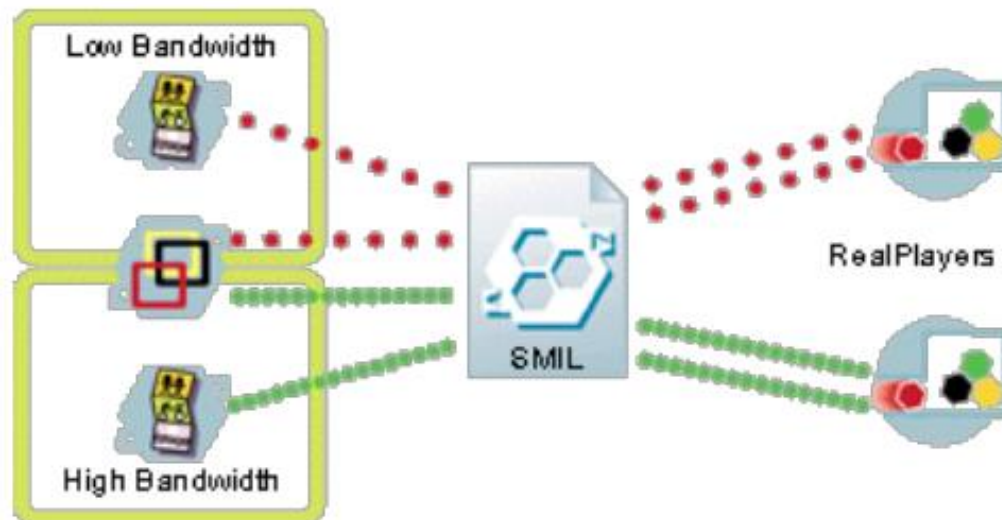
See *supra* claim elements 1.1 (segments of media), 1.2 and 1.7 (segment configured for delivery at a first rate), 1.3 and 1.8 (segment configured for delivery at a second rate) and 1.4 (media playlist with locations for file segments)

The Production Guide discloses claim element 14.3

[14.3]

a delivery resource configured to respond to a plurality of file requests by transmitting information to the requesting device in a manner that facilitates a continuous outputting of the available media by the requesting device.

Bandwidth Choices through SureStream Clip and SMIL



With RealSystem's SureStream technology, you can encode a RealAudio or RealVideo clip for up to six different bandwidths using new RealSystem G2 codecs. For example, you can encode a single RealAudio music clip for 28.8 Kbps modems, 56 Kbps modems, 112 Kbps dual ISDN, and T1 connections. Your Web page links to this single clip, and when a visitor clicks the link, RealPlayer and RealServer determine which encoding to use based on the available bandwidth.

e.g., Ex. 1026 (Production Guide) at 26

The Production Guide discloses claim elements 15 & 16

15. The system of claim 14, wherein the first rate is slower than the different rate.

With RealSystem's SureStream technology, you can encode a RealAudio or RealVideo clip for **up to six different bandwidths** using new RealSystem G2 codecs. For example, you can encode a single RealAudio music clip for 28.8 Kbps modems, 56 Kbps modems, 112 Kbps dual ISDN, and T1 connections. Your Web page links to this single clip, and when a visitor clicks the link, **RealPlayer and RealServer determine which encoding to use based on the available bandwidth.**

e.g., Ex. 1026 (Production Guide) at 26

16. The system of claim 14, wherein the given one of the segments has a format that is designed to be output at or below a given rate measured in bits per second and the format is a way in which the given one of the segments is configured to allow delivery to the requesting device via the network link.

You can encode a RealAudio clip at **8 Kbps**, for example, so that anyone with a 14.4 Kbps or higher connection can play it.

e.g., Ex. 1026 (Production Guide) at 25

The Production Guide discloses claim element 17

17. The system of claim 16, wherein the delivery resource comprises a formatting engine that puts the given one of the segments into the format.

To provide good content for users with slower connections and great content for those with faster connections . . . you **create separate clips for each bandwidth target** and let RealPlayer choose which set of clips to play. . . . You don't need separate links for modems and ISDN connections, for example.

e.g., Ex. 1026 (Production Guide) at 25

A **SMIL file can also list presentation choices for different bandwidths**. RealPlayer then chooses which clips to receive based on its available bandwidth. You can thereby support multiple connection speeds through a single hypertext link, rather than separate links for modem users, ISDN users, T1 users, and so on.

e.g., Ex. 1026 (Production Guide) at 16

The Production Guide discloses claim element 18

18. The system of claim 14, wherein the media available for delivery comprises a video, the system further comprising: a collection of instructions stored in a non-volatile memory and configured to be executed by an electronic device that has an independent power supply and a display, the collection of instructions operable when executed to direct the electronic device to continuously output the video and to periodically request a next file included on the media playlist.

RealPlayer G2 and RealPlayer Plus G2, the world's most popular **desktop applications** for playing streaming media clips.

e.g., Ex. 1026 (Production Guide) at 11

With **RealPlayer G2 installed**, you simply click the presentation link in your Web page to view the media clips.

e.g., Ex. 1026 (Production Guide) at 19

In its simplest form, a SMIL file lists multiple clips **played in sequence**:

```
<smil>
  <body>
    <audio src="rtsp://realserver.company.com/one.rm"/>
    <audio src="rtsp://realserver.company.com/two.rm"/>
    <audio src="rtsp://realserver.company.com/three.rm"/>
  </body>
</smil>
```

e.g., Ex. 1026 (Production Guide) at 50

See also supra claim elements 4 (video available media and electronic device with power supply and display), 14.3 (continuous outputting)

Ground 5
Claim 20 in view of the Production Guide and Hild

The Production Guide in combination with Hild discloses claim element 20

20. The system of claim 14, wherein the delivery resource is configured to recognize if a requesting device is a mobile device necessitating a delivery path that comprises at least one wireless link.

To reach a wide audience on the Internet, you need to provide content that can play over slow connections. . . . To provide good content for users with slower connections and great content for those with faster connections, you can use two methods, and even mix them depending on your needs. With the first method, you create a single clip that targets different bandwidths. In the second method, you create separate clips for each bandwidth target and let RealPlayer choose which set of clips to play.

Ex. 1026 (Production Guide) at 25

New standards are emerging to allow devices to describe their user interface capabilities, installed software, user preferences, and network connectivity in more abstract ways. The Composite Capability and Preference Profiles (CC/PP) specification published by the World-Wide-Web Consortium (W3C) describes a framework for providing this information within each HTTP request. **The Wireless Application Protocol (WAP) Forum has defined a similar method (called User Agent Profiles, or UAProf) for describing this information within each Wireless Session Protocol (WSP) request.** (The WSP is a form of HTTP that has been optimized for use over low-bandwidth wireless networks.)

Ex. 1018 (Hild) at 1:62-2:6

Unrebutted Expert Testimony: The Production Guide in combination with Hild discloses Claim Element 20



Dr. Nader Mir
Petitioner's Expert

“In the late ‘90s, wireless devices frequently used WAP protocol for the application layer. The wireless datagram protocol, which is part of the WAP protocol suite, function to make every data network look like UDP. When a server receives a request from a wireless device a header in the HTTP communication indicates it has been received from a wireless device, e.g. includes X-wap-profile or similar. This method is referred to as the User Agent Profile or UAProf and was available before the '802 patent.”

“A person of ordinary skill in the art would have understood that wireless devices using the WAP protocol included smart phones or PDAs and were therefore mobile devices. Numerous patents describe WAP gateways which convert WAP protocol to other internet protocols.”

- Ex. 1007 (Mir Declaration) at ¶ 92 (pp. 90)

Case IPR2017-00122

Patent 9,444,868 (“868 patent”)

Ground 1: Claims 1-12, 14, 15, and 17-20

Treyz and Fuller

Ground 2: Claims 13 and 16

Treyz, Fuller, and Glaser

US009444868B2

(12) **United States Patent**
White et al.

(10) **Patent No.:** US 9,444,868 B2
(45) **Date of Patent:** Sep. 13, 2016

(54) **SYSTEM TO COMMUNICATE MEDIA**

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

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(22) Filed: **Jun. 23, 2015**

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Related U.S. Application Data

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H04W 8/22 (2009.01)
H04W 4/02 (2009.01)
H04L 29/06 (2006.01)
H04L 29/08 (2006.01)

(52) **U.S. Cl.**
CPC **H04L 65/602** (2013.01); **H04L 65/607** (2013.01); **H04L 67/02** (2013.01); **H04L 67/1095** (2013.01)

(58) **Field of Classification Search**
CPC G06Q 30/0267; G06Q 30/0269; G11B 31/02; H04M 1/6091; H04W 84/12;

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Primary Examiner – Kashif Siddiqui

(57) **ABSTRACT**
A system for communicating media is disclosed. Such a system may include, for example, a media broken into a plurality of independent segment files that may represent sequential portions of the media. One of the segment files can be encoded to have a format that is different than the encoded format of another one of the segment files. The formats may be chosen to allow outpacing of information in the segments at different rates. A list may include network addresses for the segment files, and a content delivery system may be deployed to distribute media content to remotely located requesting devices by sending the segment files in response to requests for the segment files.

20 Claims, 8 Drawing Sheets

Netflix 1001 - Page 1

Ground 1
Claims 1-12, 14, 15, and 17-20 in view of the Treyz and Fuller

'868 Patent – Claim 1

	1. A media system, comprising:
[1.1]	a plurality of independent segment files, wherein a given segment file of the plurality of independent segment files has a given format and a different segment of the plurality of independent segment files has a different format, further wherein the given format facilitates an outputting of information in the given segment file at a given rate that is different than a rate associated with the different format;
[1.2]	a playlist that comprises a list, and the list includes a first URL for the given segment file and a different URL for the different segment file;
[1.3]	a network-based communication system operable: to distribute media content to a remotely located requesting device; to receive an HTTP communication from the remotely located requesting device that indicates a desire to access the available media; to send information representing the playlist to the remotely located requesting device; to send information representing the given segment file to the remotely located requesting device; and, to send information representing the different segment file to the remotely located requesting device; and
[1.4]	a plurality of remote devices configured to request media, wherein each of the plurality of remote devices comprises: (1) an internal memory system; (2) a collection of instructions stored in the internal memory system that is operable when executed to utilize information representing the playlist, to request a streaming delivery of the information representing the given segment file, and to request a streaming delivery of the information representing the different segment file; and (3) a buffer configured to output the information representing the given segment file at the given rate and to output information representing the different segment file at the rate, which is different than the given rate.

Treyz-Fuller Disclose Claim Element 1.1

[1.1] a plurality of independent segment files, wherein a given segment file of the plurality of independent segment files has a given format and a different segment of the plurality of independent segment files has a different format, further wherein the given format facilitates an outputting of information in the given segment file at a given rate that is different than a rate associated with the different format;

The audio from these sources may be combined to form customized channels made up of portions of the various sources. For example, if the user enjoys country music, classical music, and sports news, these types of content may be combined (e.g., from Internet radio channels) into a custom channel. The user may schedule how portions or segments of the audio from various sources are to be played. For example, the user may select the content and the duration for desired audio segments. Customized content may be provided to the user by the audio device based on the user's interests.

Ex. 1015 (Treyz) at 3:45-55

The real-time server 140 can perform compression, and other manipulations of the data, to reduce the processing burden on the web server 131. For example, in some embodiments of the invention, the real-time server 140 receives digitized video data and compresses that data into JPEG images. These JPEG images are sequenced digital frames of video. Similarly, for the audio data, the real-time server 140 breaks the audio information into one-half second time periods of audio data (other embodiments use other time periods). These one-half second time periods of data are stored in the shared memory 135. The real-time server 140 can also compress the audio information into one of a number of various compressed audio signals (e.g., G.711 and/or G.723 audio compression formats). In some embodiments of the invention, the real-time server can broadcast audio and video from multiple sources to multiple clients.

Ex. 1016 (Fuller) at 6:22-38; 9:14-30, 49-63

The Board Already Found That Treyz-Fuller Discloses “Segment Files”

Patent Owner Argument 1:

“The availability of different Internet radio links a user can select in Treyz does not comprise links or network locations to **segments** of the same available media at different output rates as required by the claims”

Patent Owner Response at 27 (emphasis in original)

Preliminary Response at 21

The Board already rejected this argument:

- “[T]he term ‘an available media’ is not limited to a single song or video, and may include, at a minimum, a ‘collection of audio or video files.’ Moreover the term ‘segment,’ which is generally defined as each of the parts into which something is or may be divide,’ is, on this record, broad enough to encompass an individual song, video, or station contained within a broader collection of audio or video files.”



Institution Decision at 11

The Board Already Found That Treyz-Fuller Discloses “Segment Files”

Patent Owner Argument 2:

“Netflix failed to offer a construction for these limitations that would encompass the scope Netflix seeks to define in the prior art”

Patent Owner Response at 27 (emphasis in original)

Preliminary Response at 20

BUT, the Board rejected this when it adopted its prior claim constructions.

Institution Decision at 6, 10-11

And, notably, those prior claim constructions already have been affirmed by the Federal Circuit.

Affinity Labs of Texas, LLC v. Samsung Elecs. Co. Ltd, 669 F. App'x 576 (Fed. Cir. 2016) (per curiam)



Unrebutted Expert Testimony: Treyz-Fuller Discloses “Segment Files”



Dr. Nader Mir
Petitioner's Expert

The Treyz device can receive “downloaded audio files and streaming digital audio files” and other media files from a variety of independent sources, including “radio station content, e-mail, news and other audio content.” Ex. 1015, Abstract; see *also id.*, Fig .1. **Treyz’s system allows a user can create a custom channel consisting of a series of segments from the sources to be played sequentially.** *Id.*, 3:45-55, Fig. 14. “The user may schedule how **portions or segments** of the audio from various sources are to be played.” *Id.*, 20:16-17.

Fuller discloses that “[t]he web server 131 transmits the video data as a multipart MIME (multi-purpose Internet mail extensions) encoded file....” Ex. 1016, 6:61-63. Similarly, the client in Fuller requests segment files with streaming audio data. *Id.*, Fig. 2 (244-248), 8:55-65, 9:20-30. Thus, **Fuller’s multipart MIME files and streaming audio data make up files that include part of the content accessible from a source of audio, video, or textual information**, such as songs or stations in a playlist or parts of an Internet radio broadcast.

- Ex. 1007 (Mir Declaration) at ¶ ¶ 91-92

Treyz-Fuller Disclose Claim Element 1.1

- [1.1] a plurality of independent segment files, wherein a given segment file of the plurality of independent segment files has a given format and a different segment of the plurality of independent segment files has a different format, further wherein the given format facilitates an outputting of information in the given segment file at a given rate that is different than a rate associated with the different format;

If it is the case that the audio, or the video, information is not being received by the client 112 at a sufficient data rate, the corresponding Java applet, in some embodiments of the invention, can **request a different rate of transmission**. The Java applet can **request a lower rate** corresponding to a lower audio or video signal, that will more appropriately match the bandwidth availability of the client 112.

E.g., Ex. 1016 (Fuller) at 10:11-17

[T]he real-time server 140 prepares the audio data by breaking the audio information into time periods. This audio information is also compressed into **various sets of compressed data corresponding to different audio rates**.

E.g., Ex. 1016 (Fuller) at 6:22-38

Treyz-Fuller Disclose Claim Element 1.1

[1.1]

a plurality of independent segment files, wherein a given segment file of the plurality of independent segment files has a given format and a different segment of the plurality of independent segment files has a different format, further wherein the given format facilitates an outputting of information in the given segment file at a given rate that is different than a rate associated with the different format;

If it is the case that **the audio, or the video, information is not being received by the client 112 at a sufficient data rate**, the corresponding Java applet, in some embodiments of the invention, **can request a different rate of transmission**. The Java applet **can request a lower rate** corresponding to a lower audio or video signal, that will more appropriately match the bandwidth availability of the client 112.

E.g., Ex. 1016 (Fuller) at 10:11-17

Treyz-Fuller Disclose Claim Element 1.2

[1.2] a playlist that comprises a list, and the list includes a first URL for the given segment file and a different URL for the different segment file;

“...menus may be presented on a display panel that allow the user to select Internet radio content based on geographic region, language of the content, or type of content (e.g., adult contemporary, alternative, blues, classical, news, sports, police radio, etc.). **Internet radio stations may also be listed** alphabetically or using any other suitable organization scheme. These **organizational arrangements** may be used to assist the user in **locating audio content from a variety of sources**, including ... **non-Internet digital radio services provided over a broadband communications network, Internet radio, downloaded audio files, etc.**”

E.g., Ex. 1015 (Treyz) at 17:25-43

“**The user may set up the stations** for the clock radio that the user is interested in by clicking on **links for stations** that the user is interested in or by otherwise selecting the **proper Internet addresses for the desired stations.**”

E.g., Ex. 1015 (Treyz) at 5:32-36

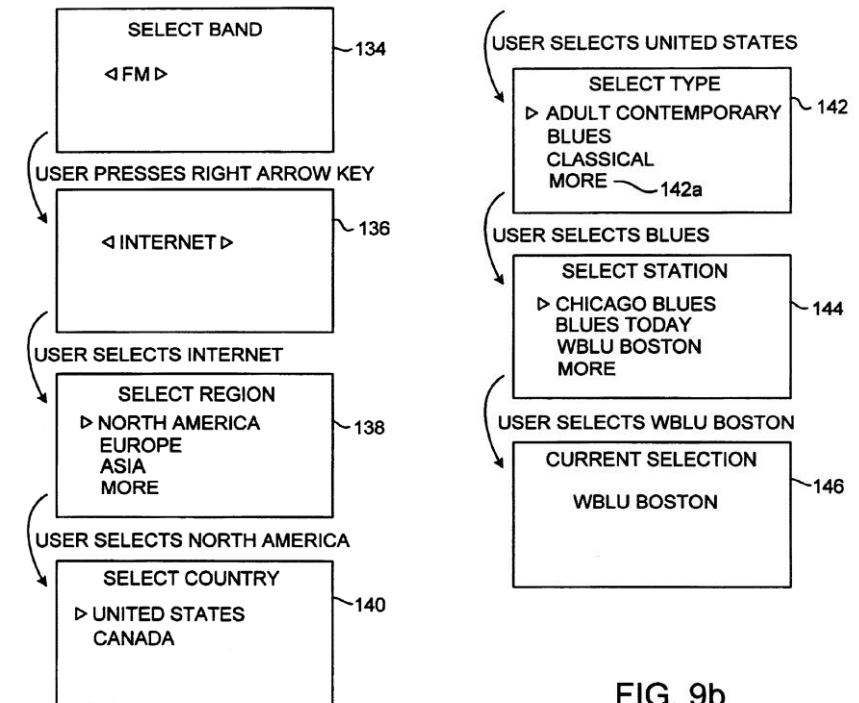


FIG. 9a

FIG. 9b

Patent Owner Argument 2:

“Netflix failed to properly compare the claims to the prior art and instead relied on an overly-broad meaning of the claims and incorporation by reference” for the “list or message that contains an address or network location for segments of an available media, such as a song or video, which is available at different output rates” limitation in claim 1 (and 9 and 14).”

Patent Owner’s Response at 22-26 (Paper No. 12); see *also* Preliminary Response at 16-20 (Paper No. 8)

The Board has found that Treyz-Fuller discloses a “list”

The Board rejected Patent Owner’s argument:

“Petitioner provides detailed arguments explaining where it contends the subject matter of independent claims 1, 7, and 14 is disclosed in Treyz and Fuller.”

Institution Decision at 12 (Paper 10) (see *also* Petition at 25; Ex. 1015 5:32-36, 12:25-43)

As has the Federal Circuit, which affirmed the following FWDs:

‘407 IPR Final Written Decision at 22 (Paper 48): Holding claim 1 of the ‘007 patent containing the materially similar limitation for “**a list of network addresses for a plurality of portions of an available media**” unpatentable in view of Treyz-Fuller.

‘408 IPR Institution Decision at 9, 12 (Paper 14): Adopting Petitioner’s argument “that Treyz utilizes a web browser to receive **a listing** of network locations for available Internet radio stations” and instituting review of claim 1.

Institution Decision at 10



Unrebutted Expert Testimony: Treyz-Fuller discloses a “list”



Dr. Nader Mir
Petitioner's Expert

“Treyz discloses a user interface that presents an **organized list of Internet radio stations**. Ex. 1015, 17:25-43; see also *id.*, Fig. 5, 9a, 9b, 10a, 4:50-5:3, 5:49-59, 7:57-61, 8:41-46, 11:53-61, 21:41-45, 23:10-16. These stations are accessed via links or Internet addresses, Ex. 1015, 5:32-36, and the Board has already found Treyz and Fuller to operate with the HTTP protocol. See IPR2014-00408, Petition (Paper 1), pp. 25-26, ID (Paper 14), pp. 11-12; '407 IPR FWD, pp. 17-18; Ex. 1016, 4:43-59.”

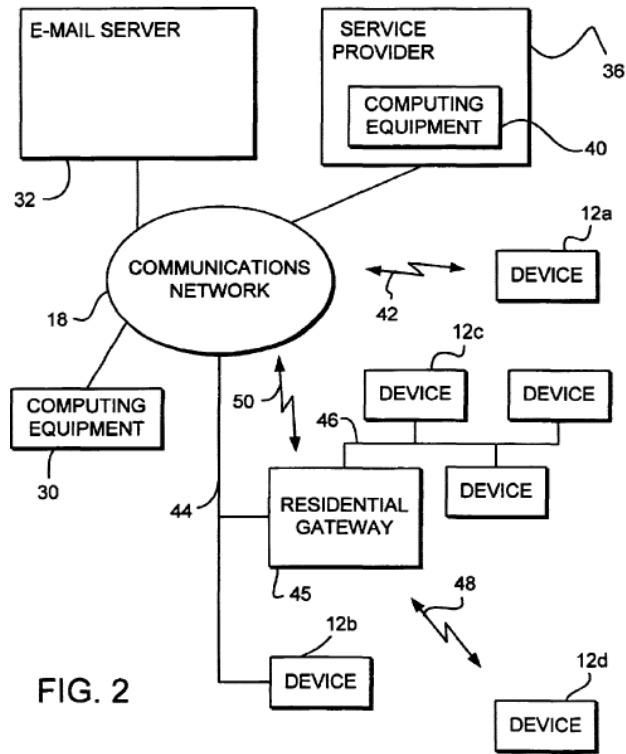
“Fuller specifically teaches that the requests for the MIME files and audio streaming data **include the URI for the content**. See Ex. 1016, 8:42-58.”

“A POSITA would know that HTTP uses URLs for addressing files over the Internet, and URLs may be used as hyperlinks and include host names (which correspond to network addresses).”

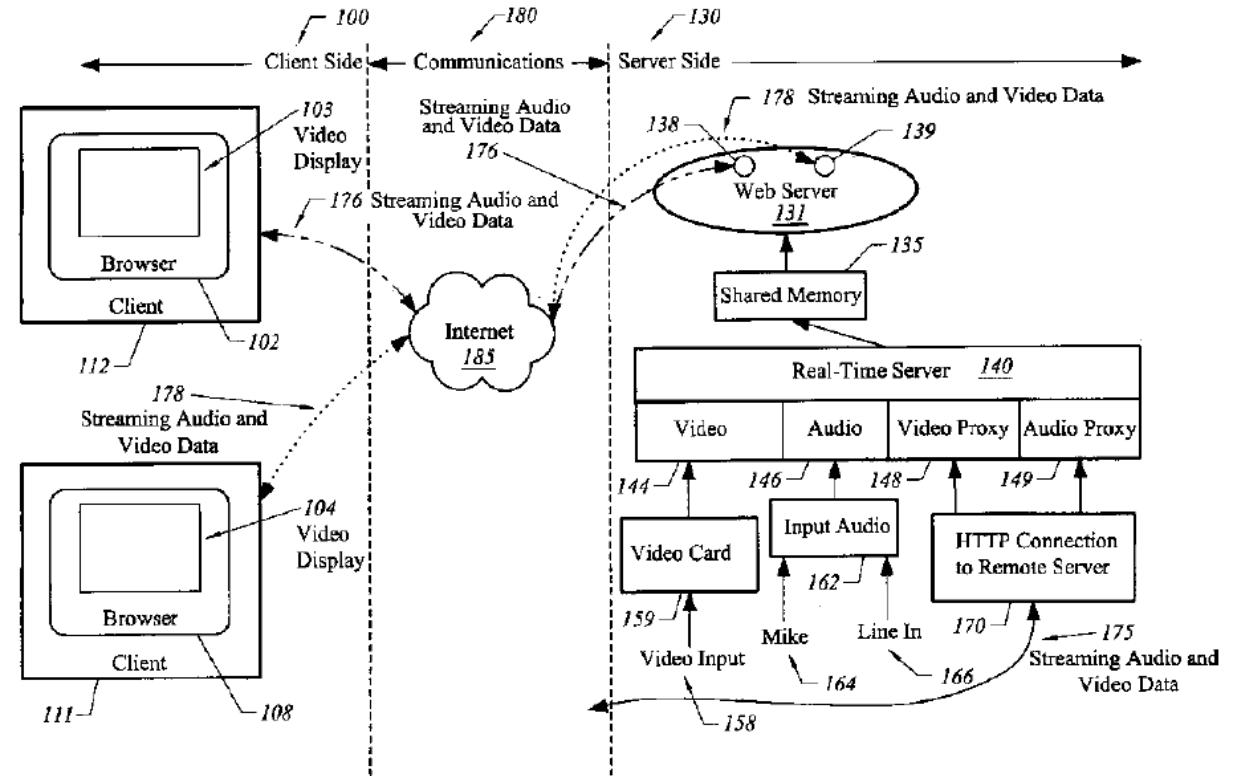
- Ex. 1007 (Mir Declaration) at ¶ 101

Treyz-Fuller Disclose Claim Element 1.3

[1.3] a network-based communication system operable: to distribute media content to a remotely located requesting device; to receive an HTTP communication from the remotely located requesting device that indicates a desire to access the available media; to send information representing the playlist to the remotely located requesting device; to send information representing the given segment file to the remotely located requesting device; and, to send information representing the different segment file to the remotely located requesting device; and



E.g., Ex. 1015 (Treyz) Fig. 2



E.g., Ex. 1016 (Fuller) Fig. 1

Treyz-Fuller Disclose Claim Element 1.3

[1.3] a network-based communication system operable: to distribute media content to a remotely located requesting device; to receive an HTTP communication from the remotely located requesting device that indicates a desire to access the available media; to send information representing the playlist to the remotely located requesting device; to send information representing the given segment file to the remotely located requesting device; and, to send information representing the different segment file to the remotely located requesting device; and

At block 210, the **client 112 initiates an HTTP request** from the Web server 131. This could be the result of the browser 102 receiving and displaying an HTML (hypertext markup language) page including a link that will initiate streaming audio and video.

E.g., Ex. 1016 (Fuller) at 8:30-34

As an example, alarm clock radio 12 may allow a user to set up 25 favorite stations. These stations may include, for example, Internet radio stations. Because hundreds or thousands of stations are available, **a web page including information on various available stations may be used to help the user select the desired stations.** An illustrative web page 216 is shown in FIG. 13.

The diagram shows a web page 216 with four input fields:

- ENTER PRODUCT ID 218
- TELEPHONE NO. 220
- TIME TO DOWNLOAD 222
- CHANNEL SELECTION 224

The entire form is enclosed in a box labeled 216.

E.g., Ex. 1015 (Treyz) at 23:11-16; Fig 13

Treyz-Fuller Disclose Claim Element 1.3

[1.3] a network-based communication system operable: to distribute media content to a remotely located requesting device; to receive an HTTP communication from the remotely located requesting device that indicates a desire to access the available media; to send information representing the playlist to the remotely located requesting device; to send information representing the given segment file to the remotely located requesting device; and, to send information representing the different segment file to the remotely located requesting device; and

If it is the case that **the audio, or the video, information is not being received by the client 112 at a sufficient data rate**, the corresponding Java applet, in some embodiments of the invention, **can request a different rate of transmission**. The Java applet **can request a lower rate** corresponding to a lower audio or video signal, that will more appropriately match the bandwidth availability of the client 112.

E.g., Ex. 1016 (Fuller) at 10:11-17

Treyz-Fuller Disclose Claim Element 1.4(1)

[1.4] a plurality of remote devices configured to request media, wherein each of the plurality of remote devices comprises: (1) an internal memory system...

Memory devices such as **solid-state memory circuits, hard drives (e.g., miniature hard drives), or any other suitable storage** arrangement may be used.

E.g., Ex. 1015 (Treyz) at 1:47-51

Treyz-Fuller Disclose Claim Element 1.4(2)

[1.4] a plurality of remote devices configured to request media, wherein each of the plurality of remote devices comprises: ... (2) a collection of instructions stored in the internal memory system that is operable when executed to utilize information representing the playlist, to request a streaming delivery of the information representing the given segment file, and to request a streaming delivery of the information representing the different segment file...

The audio may also be **streamed** to alarm clock radio 12 in real time and played back to the user using a streaming audio player (e.g., using a **streaming media player** from Microsoft or Real Networks or the like).

E.g., Ex. 1015 (Treyz) at 14:26-31

The playback of **streaming audio** may be initiated by alarm clock radio 12 based on the alarm time set in alarm clock radio 12 (e.g., alarm clock radio 12 may **request streaming digital audio content** or may tune to streaming audio content that is already being provided from a remote content source).

E.g., Ex. 1015 (Treyz) at 25:65-26:5

The user may **schedule how portions or segments of the audio from various sources are to be played.**

E.g., Ex. 1015 (Treyz) at 3:50-51, 20:16-17

Unrebutted Expert Testimony: Treyz-Fuller Disclose Claim Element 1.4(2)



Dr. Nader Mir
Petitioner's Expert

“Since in the Treyz system “[t]he user may schedule how portions or segments of the audio from various sources are to be played,” Treyz teaches that the audio player software uses the user’s “preferences,” including the selected content (e.g., identified as “Internet addresses”), the order of playing, and duration for each segment, (*i.e.*, information representing the playlist) **to request streaming content representing the different segment files.** *Id.*, 3:45-51, 5:60-6:6, 21:39-48, 22:19-36, 25:65-26:5.”

- Ex. 1007 (Mir Declaration) at ¶ 116

Treyz-Fuller Disclose Claim Element 1.4(3)

- [1.4] a plurality of remote devices configured to request media, wherein each of the plurality of remote devices comprises: ... (3) a buffer configured to output the information representing the given segment file at the given rate and to output information representing the different segment file at the rate, which is different than the given rate.

Streaming audio that is received in real time may be **buffered using local memory to improve its quality.**

E.g., Ex. 1015 (Treyz) at 1:58-60

If it is the case that **the audio, or the video, information is not being received by the client 112 at a sufficient data rate,** the corresponding Java applet, in some embodiments of the invention, **can request a different rate of transmission.** The Java applet **can request a lower rate** corresponding to a lower audio or video signal, that will more appropriately match the bandwidth availability of the client 112.

E.g., Ex. 1016 (Fuller) at 10:11-17



The Board Previously Found Similar Claim Elements Unpatentable in the '407 IPR Final Written Decision that the Federal Circuit Affirmed



'868 Patent	'407 IPR ('007 Patent)
<p>“a plurality of independent segment files.” Ex. 1001 at 18:57.</p>	<p>“a plurality of portions of an available media.” Ex. 1011 at 18:29-30.</p>
<p>“a playlist that comprises a list, and the list includes a first URL for the given segment file and a different URL for the different segment file.” Ex. 1001 at 18:65-67.</p>	<p>“a list of network addresses for a plurality of portions of an available media.” Ex. 1011 at 18:29-30.</p>
<p>“wherein a given segment file of the plurality of independent segment files has a given format ... further wherein the given format facilitates an outputting of information in the given segment file at a given rate.” Ex. 1001 at 18:57-63.</p>	<p>“delivery of a first portion of the available media such that the first portion is delivered at a first communication rate ...” Ex. 1011 at 18:30-32.</p>
<p>“wherein ... a different segment of the plurality of independent segment files has a different format ... further wherein the given format facilitates an outputting of information in the given segment file at a given rate that is different than a rate associated with the different format.” Ex. 1001 at 18:57-64.</p>	<p>“delivery of a second portion of the available media such that the second portion is delivered at a second communication rate that is different than the first communication rate.” Ex. 1011 at 18:33-36.</p>

'868 Patent	'407 IPR ('007 Patent) – Claim 2
<p>“a network-based communication system operable: ... to receive an HTTP communication from the remotely located requesting device that indicates a desire to access the available media ...” Ex. 1001 at 19:1-5.</p>	<p>“The system of claim 1, wherein the browser utilizes the hyper text transfer protocol (http) to facilitate accessing the available media.” Ex. 1011 at 18:37-39.</p>

Treyz-Fuller Disclose Claim Element 2

2. The media system of **claim 1**, wherein at least one of the plurality of remote devices is a portable handheld device having a display, and the available media is a video.

Any of the functions of alarm clock radio **12** may be performed on an audio device such as a radio, stereo system, audio-visual component, personal computer, **handheld computing device**, in-home electronic device, web appliance, or other suitable electronic device.

E.g., Ex. 1015 (Treyz) at 26:54-62.

Such audio devices may have **displays**.

E.g., Ex. 1015 (Treyz) at 8:40

If desired, text may be converted to audio using voice synthesizing arrangements. If alarm clock radio 12 has a display, text, graphics, and **video may be displayed on the display**.

E.g., Ex. 1015 (Treyz) at 9:3-5

Treyz-Fuller Disclose Claim Element 3

3. The media system of **claim 1**, wherein the network-based communication system is configured to send the given segment file via a streaming delivery.

Streaming audio that is received in real time may be buffered using local memory to improve its quality.

E.g., Ex. 1015 (Treyz) at 1:59-60

FIG. 2 illustrates one example of a method of broadcasting **streaming audio and video data** to multiple users.

E.g., Ex. 1016 (Fuller) at 8:18-19

Treyz-Fuller Disclose Claim Element 4

4. The media system of **claim 1**, wherein the plurality of independent segment files comprise serial component parts of the available media and segmenting the available media into the plurality of independent segment files facilitates the delivery of the available media to the remotely located requesting device via Internet-based communications.

For example, in some embodiments of the invention, the real-time server 140 receives digitized video data and compresses that data into JPEG images. These JPEG images are sequenced digital frames of video.

Similarly, for the audio data, the real-time server 140 breaks the audio information into one-half second time periods of audio data (other embodiments use other time periods). These one-half second time periods of data are stored in the shared memory 135. The real-time server 140 can also compress the audio information into one of a number of various compressed audio signals (e.g., G.711 and/or G.723 audio compression formats). In some embodiments of the invention, the real-time server can broadcast audio and video from multiple sources to multiple clients.

Ex. 1016 (Fuller) at 6:25-38; 9:14-30, 49-63

In some arrangements (e.g., when the communications link is an Internet connection that is always on), the communications 20 link may essentially have already been established. . . . Signals may also involve paging or other messaging transmissions, e-mail transmissions, voice mail transmissions, cellular telephone transmissions, wireless Internet transmissions, packet-based transmissions, any other suitable type of data transmissions, or a combination of such transmissions.

Ex. 1015 (Treyz) at 2:18-21, 30-34

Treyz-Fuller Disclose Claims 5

5. The media system of **claim 1**, wherein at least one of the plurality of remote devices is a component of a home entertainment system, and the available media is a video.

By using an auxiliary audio output such as audio output **62** of FIG. **2**, alarm clock radio **12** may supply an audio output suitable for use in a stereo system or other such home entertainment components. Any of the functions of alarm clock radio **12** may be provided in a stand-alone radio or other electronic audio or **audio-visual entertainment component**.

E.g., Ex. 1015 (Treyz) at 24:6-12

See also supra claim element 2 (video)

Treyz-Fuller Disclose Claims 6

6. The media system of **claim 1**, wherein the plurality of independent segment files comprise serial component parts of the available media and a formatting of the given segment into the given format encodes the given segment to facilitate an outputting of the given segment at the given rate, further wherein the formatting occurs prior to sending information representing the given segment file to the remotely located requesting device.

If it is the case that **the audio, or the video, information is not being received by the client 112 at a sufficient data rate**, the corresponding Java applet, in some embodiments of the invention, **can request a different rate of transmission**. The Java applet **can request a lower rate** corresponding to a lower audio or video signal, that will more appropriately match the bandwidth availability of the client 112.

E.g., Ex. 1016 (Fuller) at 10:11-17

See also supra claim element 4 (serial component parts)

Unrebutted Expert Testimony: Treyz-Fuller discloses claim element 6



Dr. Nader Mir
Petitioner's Expert

“[T]he audio/video streaming files in Fuller must be formatted prior to sending to the client. Ex. 1016, 5:48-50, 6:65-67 (“The web server 131 transmits the audio data as *compressed audio data* for decoding by an applet run in the browser.”) (emphasis added); see also *id.*, 8:42-9:33 (also describing encoded video as JPEG frames prior to sending).”

“As a POSITA would understand, in the disclosures of Treyz and Fuller formatting data for transmission must occur before transmission as a basic principle of communications. See Ex. 1030 at p. 2 (Figure 1-1 showing information source and encoding before transmission).”

- Ex. 1007 (Mir Declaration) at ¶ 128

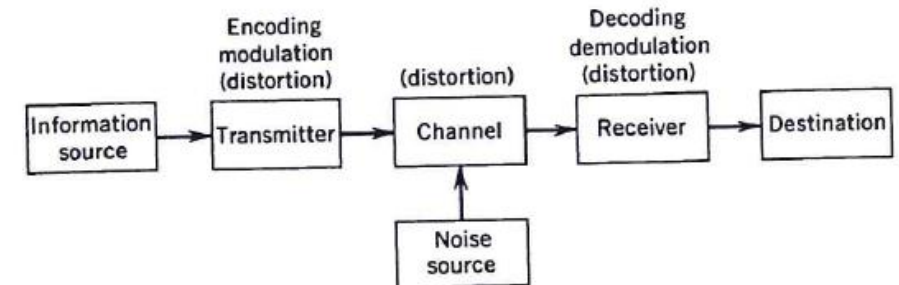


FIGURE 1-1 Block diagram of communications system.

'868 Patent – Claim 7

	7. A media system, comprising:
[7.1]	a plurality of independent segment files that represent an available media, wherein a given segment file of the plurality of independent segment files has a given compression format and a different segment file of the plurality of independent segment files has a different compression format, further wherein the given compression format facilitates an outputting of information in the given segment file at a first rate that is different than a second rate associated with the different compression format;
[7.2]	a list including a given address for the given segment file and a different address for the different segment file;
[7.3]	a content delivering system comprising an electronic device operable as a communication device and a plurality of memory devices operable to store information, the content delivering system configured to receive an HTTP communication from a remote requesting device that indicates a desire to access the available media, to send the list in response to receiving the HTTP communication, to receive an HTTP communication that indicates a request for the given segment file, to stream data representing the given segment file, to receive an HTTP communication that indicates a request for the different segment file, and to stream data representing the different segment file; and
[7.4]	the electronic device comprising a housing component at least partially defining an enclosure, a transceiver communicatively coupled to a communications network, and a processor located within the enclosure.

Treyz-Fuller Disclose Claim Elements 7.1 & 7.2

- [7.1] a plurality of independent segment files that represent an available media, wherein a given segment file of the plurality of independent segment files has a given compression format and a different segment file of the plurality of independent segment files has a different compression format, further wherein the given compression format facilitates an outputting of information in the given segment file at a first rate that is different than a second rate associated with the different compression format;
- [7.2] a list including a given address for the given segment file and a different address for the different segment file;

[T]he real-time server 140 prepares the audio data by breaking the audio information into time periods. This audio information is also compressed into various sets of compressed data corresponding to different audio rates.

E.g., Ex. 1016 (Fuller) at 9:15-19

The real-time server 140 takes each video frame from the video module 144, or the video proxy module 148, and compresses that information into a JPEG image.

E.g., Ex. 1016 (Fuller) at 9:51-54

See also supra claim elements 1.1 (segment files with given formats, outputting at given rates) and 1.2. (lists and addresses)

Treyz-Fuller Disclose Claim Element 7.3

[7.3] a content delivering system comprising an electronic device operable as a communication device and a plurality of memory devices operable to store information, the content delivering system configured to receive an HTTP communication from a remote requesting device that indicates a desire to access the available media, to send the list in response to receiving the HTTP communication, to receive an HTTP communication that indicates a request for the given segment file, to stream data representing the given segment file, to receive an HTTP communication that indicates a request for the different segment file, and to stream data representing the different segment file

Communications between the audio device and the audio source may be unidirectional (from the audio source to the audio device) or may be bidirectional.

E.g., Ex. 1015 (Treyz) at 2:26-28

The communications interface 180 allows the client side 100 to communicate with the server side 130.

E.g., Ex. 1016 (Fuller) at 5:12-13

For example, the user may use region **234** to set up a content delivery schedule for the user's alarm clock radio **12**. Initially, region **234** may be blank for each segment. ... The user may be allowed to select from various content options The user may submit the selections by clicking on submit option **236**.

E.g., Ex. 1015 (Treyz) at 22:7-18

See also supra claim elements 1.3 (content delivery system, HTTP communications, sending information representing segment files), 1.4 (memory devices), and 3 (streaming delivery)

Unrebutted Expert Testimony: Treyz-Fuller Disclose Claim Element 7.3



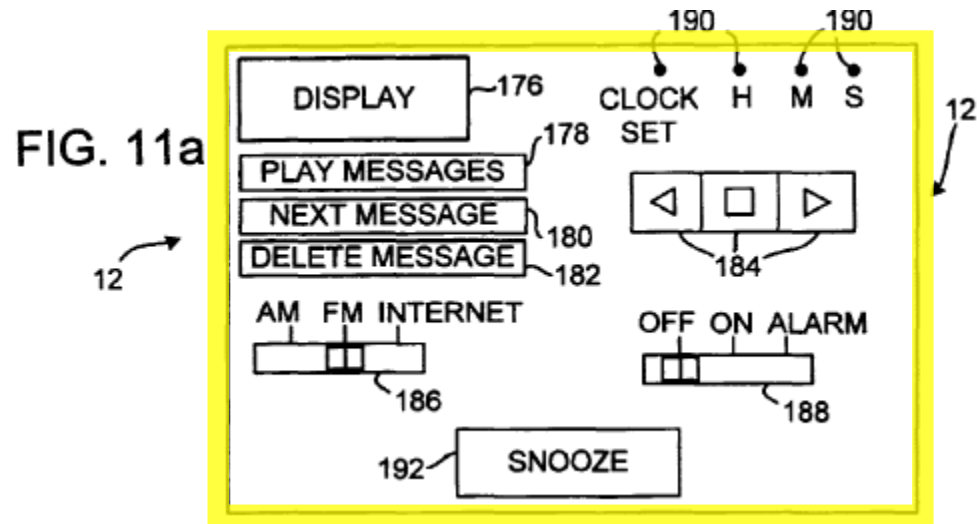
Dr. Nader Mir
Petitioner's Expert

A POSITA would understand that the Treyz device or Fuller client communicate with the media service server or web server using HTTP communications. In Treyz, for example, in response to receiving the user's settings sections (including content and duration selections), for example via the web site of Fig. 14 (21:49-55 and 22:7-18), an HTTP communication, the service provider server could send the user's setting selections to an electronic device (22:29-32).

- Ex. 1007 (Mir Declaration) at ¶ 136

Treyz-Fuller Disclose Claim Element 7.4

[7.4] the electronic device comprising a housing component at least partially defining an enclosure, a transceiver communicatively coupled to a communications network, and a processor located within the enclosure.



E.g., Ex. 1015 (Treyz) Fig. 11a

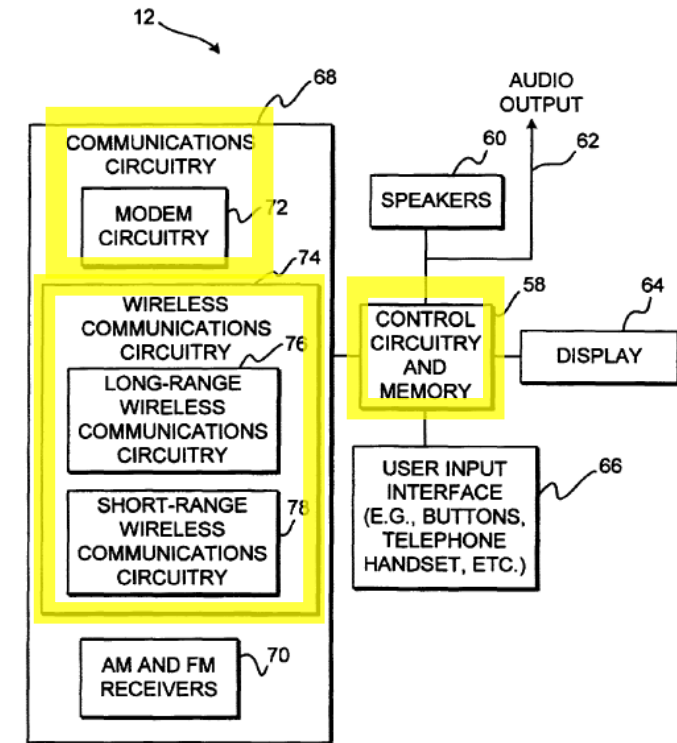


FIG. 4

E.g., Ex. 1015 (Treyz) Fig. 4

Treyz-Fuller Disclose Claim Element 8

8. The media system of **claim 7**, wherein the available media comprises a video, further wherein the transceiver is communicatively coupled to the communications network via a wire line connection, the system further comprising: (1) an engine that divides the available media into the plurality of independent segment files and encodes the plurality of independent segment files into an appropriate format to facilitate a delivery of the available media to a requesting device; and (2) the remote requesting device.

Modem circuitry **72** such as a telephone modem, an integrated services digital network (**ISDN**) modem, a digital subscriber line (**DSL**) modem, a cable modem, or any other suitable communications circuitry may be used to support communications with other devices over communications network **18**, an in-home network, **a direct wired connection**, etc.

E.g., Ex. 1015 (Treyz) at 13:30-36

The real-time server 140 represents an **application**, or set of applications, executing on one or more computers, that **prepares audio and video data** for broadcasting to multiple users through the Web server 131.

E.g., Ex. 1016 (Fuller) at 6:17-20

The real-time server 140 can perform compression, and other manipulations of the data, to reduce the processing burden on the web server 131. For example, in some embodiments of the invention, **the real-time server 140 receives digitized video data and compresses that data into JPEG images. These JPEG images are sequenced digital frames of video. Similarly, for the audio data, the real-time server 140 breaks the audio information into one-half second time periods of audio data** (other embodiments use other time periods). These one-half second time periods of data are stored in the shared memory 135.

Ex. 1016 (Fuller) at 6:22-38; 9:14-30, 49-63

See also supra claim elements 1.3 (remote requesting device), 2 (video)

Treyz-Fuller Disclose Claim Element 9

9. The media system of **claim 7**, further comprising the remote requesting device, wherein the remote requesting device is a cellular telephone that comprises a display and an application that is configured, when executed at the cellular telephone, to facilitate presentation of a video component of the available media on the display.

At block 258, the client 112, **using the capabilities of the browser** 102, decompresses the video data from the MIME encoded format, and the JPEG encoded form, and **creates the video display** 103.

E.g., Ex. 1016 (Fuller) at 9:64-67

See also supra claim elements 1.4 (remote requesting device) and 2 (portable handheld device and video)

Treyz-Fuller Disclose Claim Element 10

10. The media system of **claim 7**, further comprising an application stored in a memory, the application configured for execution by a wireless enabled device, wherein the application when executed by the wireless enabled device facilitates the wireless enabled device acting as the remote requesting device.

Audio devices may be mobile devices (e.g., car radios). A suitable communications link for such a mobile audio device may be based, for example, on cellular modem technology or other suitable wireless technology.

E.g., Ex. 1015 (Treyz) at 7:11-15

See also supra Claim elements 1.4 (citing instructions (*i.e.*, an “application”), carried out by the “remote device”); and 9 (cellular telephone and web browser applications)

Treyz-Fuller Disclose Claim Element 11

11. The media system of **claim 7**, further comprising:
a digital engine in the content delivering system that is configured to maintain the list; and
a communication engine in the content delivering system that is configured to facilitate a receipt of requests and a communication of information in response to the receipt of requests.

If desired, the user's content selections, duration selections, and **other configuration selections may be stored by the server** at the alarm clock radio service provider or other suitable source or other entity until it is time to deliver content to alarm clock radio **12**. When the content is delivered, the delivered content may be customized based on the user's selections. For example, downloaded files or streaming content may be customized based on the user's selections. The user's content selections, duration selections, and other configuration settings may also be distributed to the alarm clock radio **12** for use in filtering content at alarm clock radio **12**.

E.g., Ex. 1015 (Treyz) at 22:19-32

A service provider **36** may use **computing equipment 40 to provide audio content** and other services to alarm clock radio **12** over communications network **18**.

E.g., Ex. 1015 (Treyz) at 11:33-35

The Web server 131 **communicates data over the Internet** 185 using one or more communications protocols.

E.g., Ex. 1016 (Fuller) at 6:50-51

See also supra claim elements 1.3 and 7.3

Treyz-Fuller Disclose Claim Element 12

12. The media system of **claim 7**, wherein the content delivering system is communicatively coupled to a wireless network and is configured to send the given segment via a streaming delivery that comprises at least one wireless link.

Suitable communications technologies for providing audio to the audio device include technologies based on satellite systems, fiber optics, cable, **wireless links**, micro-wave links, free-space optical links, combinations of such technologies, etc.

E.g., Ex. 1015 (Treyz) at 2:22-26

'868 Patent – Claim 14

	14. A media system, comprising:
[14.1]	an electronic device comprising a display, a buffering component, a transceiver, and a memory system, wherein the electronic device is configured to utilize HTTP in connection with receiving a streaming delivery of an available media;
[14.2]	a collection of instructions stored in the memory system and operable when executed to allow the electronic device: (1) to utilize HTTP to request a file comprising a listing of URLs for a plurality of media segment files associated with the available media; (2) to utilize the listing of URLs to request a given one of the plurality of media segment files; (3) to receive information representing the given one of the plurality of media segment files; (4) to utilize the listing of URLs to request another one of the plurality of media segment files, wherein the given one has a given compression format and the other one has a different compression format; and
[14.3]	the buffering component of the electronic device configured: to output information in the given one of the plurality of media segment files at a given rate, and to output information in the another one of the plurality of media segment files at a rate that is different than the given rate.

Treyz-Fuller Disclose Claim Element 14.1

[14.1] an electronic device comprising a display, a buffering component, a transceiver, and a memory system, wherein the electronic device is configured to utilize HTTP in connection with receiving a streaming delivery of an available media;

See supra claim elements 1.3 and 7.3 (utilization of HTTP communications for streaming media); 1.4 (“a buffer ...” and “an internal memory system”), and 7.4 (“a transceiver ...”); and 2 (“wherein at least one of the plurality of remote devices is a portable handheld device having a display”)

Treyz-Fuller Disclose Claim Element 14.2

[14.2] a collection of instructions stored in the memory system and operable when executed to allow the electronic device: (1) to utilize HTTP to request a file comprising a listing of URLs for a plurality of media segment files associated with the available media; (2) to utilize the listing of URLs to request a given one of the plurality of media segment files; (3) to receive information representing the given one of the plurality of media segment files; (4) to utilize the listing of URLs to request another one of the plurality of media segment files, wherein the given one has a given compression format and the other one has a different compression format

At step **82**, the audio may be provided to alarm clock radio **12** and played back for the user. The audio may be provided as a downloaded file (e.g., an MP3 file) and played back with an appropriate digital audio player (e.g., an MP3 player) implemented using control circuitry and memory **58**. The audio may also be streamed to alarm clock radio **12** in real time and played back to the user using a streaming audio player (e.g., **using a streaming media player from Microsoft or Real Networks** or the like).

E.g., Ex. 1015 (Treyz) at 14:23-31

The client 112 represents a computer, such as a PC compatible computer, running a browser application 102. For video display, the browser application 102 can include a Netscape Navigator™ or Communicator™ program for “multipart/x-mixed-replace MIME type video,” or a Microsoft Internet Explorer™ 3.0 or later for a Java based video transmission. . . . The browser application 102 is responsible for receiving the streaming audio and video data 176 and reconstructing an audio and video signal suitable for the end user.

E.g., Ex. 1016 (Fuller) at 7:46-60

See also supra claim elements 1.2-1.4, 7.1

Treyz-Fuller Disclose Claim Element 14.3

[14.3] the buffering component of the electronic device configured: to output information in the given one of the plurality of media segment files at a given rate, and to output information in the another one of the plurality of media segment files at a rate that is different than the given rate.

- *See supra* claim elements 1.1 (outputting information at given rates), 1.4 (buffer)

Treyz-Fuller Disclose Claim Elements 15, 17, 18

15. The media system of **claim 14**, further comprising:
a housing component for the electronic device that at least partially defines an enclosure in which the memory system and the buffering component are secured, wherein the buffering component comprises a buffer; and
a local area wireless communication module secured within the enclosure.

See supra claim elements 1.4 & 7.4

17. The media system of **claim 14**, wherein the electronic device further comprises an internal rechargeable battery and a non-circular physical interface, wherein the non-circular physical interface includes at least a first contact to allow an external power source to recharge the internal rechargeable battery and a second contact to allow a communication of data.

“Rear panel 204 may also have a battery compartment and battery 208.” Ex. 1015 (Treyz) 19:64-20:3

The Board has held that Treyz discloses an electronic device with a “non-circular physical interface.” ‘407 IPR Institution Decision at 9-10, Final Written Decision at 22.

18. The media system of **claim 14**, wherein the electronic device is selected from a group consisting of a cellular telephone device, a computer device, a home media device, and a personal digital assistant device.

See supra claim elements 5 and 9

Treyz-Fuller Disclose Claim Element 19

19. The media system of **claim 14**, wherein the file is written in XML, further wherein the collection of instructions at least partially defines a web browser, further wherein the buffering component comprises a buffer, and further wherein the rate and the given rate are measured in bits per second.

A remote service for adjusting settings and preferences may be based on an Internet interface and accessed by the user with a separate web browser, may be based on an Internet interface and accessed with a web browser that is part of the alarm clock hardware

E.g., Ex. 1015 (Treyz) at 6:11-15

The client 112 represents a computer, such as a PC compatible computer, running a **browser application** 102. For video display, the **browser application** 102 can include a **Netscape Navigator**™ or Communicator™ program for “multipart/x-mixed-replace MIME type video,” or a **Microsoft Internet Explorer**™ 3.0 or later for a Java based video transmission.

E.g., Ex. 1016 (Fuller) at 6:50-51

- *See also supra* claim elements 14.2 (file comprising list of URLs), 15 (buffer)

Unrebutted Expert Testimony: Use of XML was obvious to a POSITA



Dr. Nader Mir
Petitioner's Expert

“XML was known as a standardized way to structure information for passing between processes, particularly over the Internet. See Ex. 1038, pp. 1-3. Further, XML was ‘designed for ease of implementation and for interoperability with both SGML and HTML.’ *Id.*, p. 1.”

“Because XML was a standard way to structure information and compatible with HTML, employing it to facilitate the exchange of the lists of segments associated with the custom channels would have been obvious to a POSITA. See Ex. 1038, p. 1 (‘The Extensible Markup Language (XML) is a subset of SGML that is completely described in this document. Its goal is to enable generic SGML to be served, received, and processed on the Web in the way that is now possible with HTML. XML has been designed for ease of implementation and for interoperability with both SGML and HTML.’)”

“Additionally, a POSITA would have known that XML could be used to control how audio information is played for Java-based applications, such as Fuller’s Java applet implemented in the Treyz device.”

- Ex. 1007 (Mir Declaration) at ¶ 177-178

Treyz-Fuller Disclose Claim Element 20

20. The media system of **claim 14**, further comprising another collection of instructions stored in the memory system and operable when executed to communicate information representing a graphical interface presented on the display to a different electronic device to allow the different electronic device to present the graphical interface on a display associated with the different electronic device.

The user may adjust settings **using an external device that is in communication with alarm clock radio 12** over a wired or wireless link. This type of arrangement may **allow the user to select from numerous options or to enter text more easily** than might be possible using a relatively small number of buttons on alarm clock radio 12.

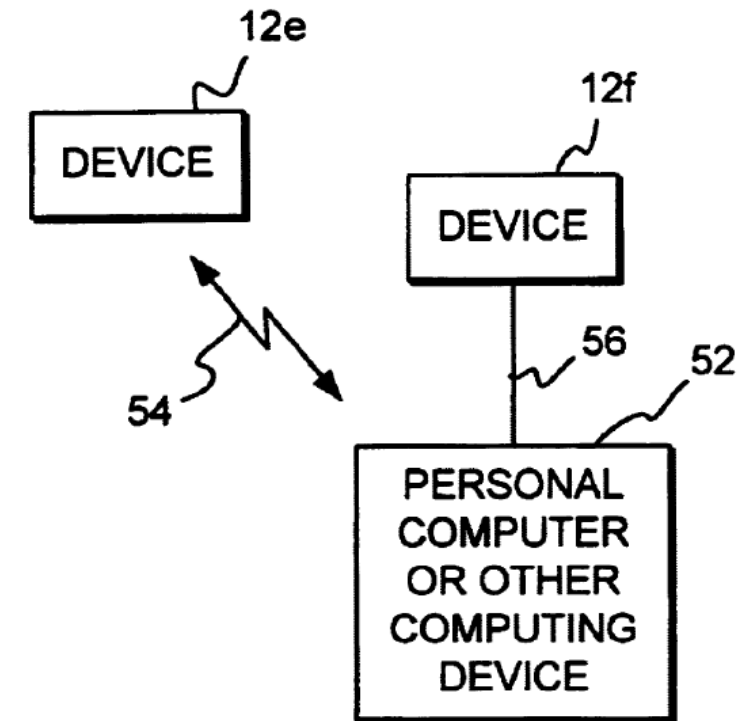
E.g., Ex. 1015 (Treyz) at 11:62-67

As shown in FIG. 3, **the user may use a personal computer** or other computing device **52 to communicate with an alarm clock radio** or other device 12e over wireless link **54**.

E.g., Ex. 1015 (Treyz) at 12:11-15

A remote service for adjusting settings and preferences may be based on an Internet interface and **accessed by the user with a separate web browser**

E.g., Ex. 1015 (Treyz) at 6:11-13



E.g., Ex. 1015 (Treyz) Fig. 3

Ground 2
Claims 13 and 16 in view of Treyz, Fuller, and Glaser

Treyz-Fuller in combination with Glaser discloses Claims 13 & 16

13. The media system of **claim 10**, wherein a collection of instructions included in the application are further operable to cause the wireless enabled device *to consider an amount of buffer fill within an internal buffer* before requesting the different segment file.

Streaming audio that is received in real time may be buffered using local memory to improve its quality.

E.g., Ex. 1015 (Treyz) at 1:47-51, 58-60

[T]he CPU **310** within the subscriber unit **110** constantly monitors the memory allocated within the buffer 315

E.g., Ex. 1017 (Glaser) at 16:6-8; *see also id.* at 21:5-8

16. The media system of **claim 15**, wherein the buffer facilitates presentation of a video media on the display, further wherein *an amount of buffer fill in the buffer is considered* in connection with determining which of an additional ones of the plurality of media segment files to request.

- *See supra* claim elements 1.4, 2, and 13.

Motivations to Combine – Treyz and Fuller



Dr. Nader Mir
Petitioner's Expert

Both Treyz and Fuller concern the delivery of streaming multimedia content over an Internet-based client/server network. See, e.g., Ex. 1016, 1:14-17, 2:53-56; Ex. 1015, Abst.

A POSITA would recognize the benefits of configuring the Treyz device to request portions of media content for delivery at different communication rates, as taught in Fuller. Adding these features to the Treyz device would provide for efficient use of transmission bandwidth and improved quality of the streaming media transmission.

In view of Treyz's purpose of providing wireless access to streaming multimedia content available on the Internet, a POSITA would have been motivated to address this problem using Fuller's disclosure concerning switching communication rates for the efficient and uninterrupted delivery of streaming content.

- See '1701 IPR, Ex. 1007 (Mir Declaration), ¶¶ 78-82; '122 IPR, Ex. 1007 (Mir Declaration), ¶¶ 82-86.

Motivations to Combine – Treyz and Fuller

The Board has found a motivation to combine Treyz and Fuller

“We are also persuaded that Petitioner has presented sufficient reasoning as to why one of ordinary skill in the art would have sought to combine the relevant disclosures of the two references.”

‘1701 Institution Decision at 12 (Paper 9)

“Petitioner also provides an explanation supported by the record evidence as to why one of ordinary skill in the art would have sought to combine the two references.”

‘122 Institution Decision at 12 (Paper 10)

The Federal Circuit has affirmed the Board’s findings of a motivation to combine Treyz and Fuller

‘407 IPR Final Written Decision at 22 (Paper 48): “[O]ne of ordinary skill in the art would have sought to use, and would have had a reasonable expectation of success in implementing, Fuller’s idea of transmission rate switching in Treyz.”

Affinity Labs of Texas, LLC v. Samsung Elecs. Co. Ltd, 669 F. App’x 576 (Fed. Cir. 2016) (per curiam)



Motivations to Combine – Treyz-Fuller with Glaser



Dr. Nader Mir
Petitioner's Expert

All three patents present systems for streaming media across a network. Ex. 1007, ¶¶87-88.

Treyz and Fuller discuss various RealNetworks products as prior art or as alternative embodiments of some aspects of their inventions. *Id.*; Ex. 1016, 1:61-2:23; Ex. 1015, 14:27-31. Because these patents all deal with the same problem, streaming media, and also refer to RealNetworks as background or as a resource, a POSITA would naturally look to Glaser, a RealNetworks patent, for more information regarding streaming media. Ex. 1007, ¶88.

Neither Fuller nor Treyz expressly states how a client should determine whether it is receiving data at a “sufficient rate”; however, a POSITA would look to the RealNetworks technology, including RealNetworks’ patents (e.g., U.S. Patent Nos. 6,480,541; 7,885,340 and 6,985,932) to learn how RealNetworks suggests how buffers should be managed or how to determine whether information is arriving at the client device quickly enough.

- See ‘1701 IPR, Ex. 1007 (Mir Declaration), ¶ ¶ 83-84; ‘122 IPR, Ex. 1007 (Mir Declaration), ¶ ¶ 87-88.

Motivations to Combine – Treyz-Fuller with Hild & Production Guide with Hild



Dr. Nader Mir
Petitioner's Expert

Treyz discloses using wireless networks: “Communication paths such as 42, 48, and 50 may be wireless communication paths.” Ex. 1015 at 9:66-67.

The Production Guide similarly discloses streaming media over the internet: “To reach a wide audience on the Internet, you need to provide content that can play over slow connections.” Ex. 1026 at 25.

When a server receives a request from a wireless device, a header in the HTTP communication indicates it has been received from a wireless device, e.g. includes X-wap-profile or similar. This method is referred to as the “User Agent Profile” or “UAProf” and was available prior to the '812 application. Ex. 1007 (Mir Declaration) at 59-60.

“The Wireless Application Protocol (WAP) Forum has defined a similar method (called User Agent Profiles, or UAProf) for describing this information within each Wireless Session Protocol (WSP) request. (The WSP is a form of HTTP that has been optimized for use over low-bandwidth wireless networks.)” Ex. 1018 at 2:1-6; see *also* Ex. 1019 at 1 (User Agent Attributes “enable the client-specific services for various Internet information appliances like ... PDAs, and smart phones.”).

A person of ordinary skill in the art would look to WAP and HTTP standards and protocols to find additional information regarding how this communication is performed because those are the standards for wireless and Internet communications before the '802 patent. Ex. 1007 (Mir Declaration) at 59-60.

Patent Owner's Constitutional Challenge in these proceedings is misguided

- Affinity's constitutionality argument is directed at the wrong forum
 - The Board has correctly acknowledged it “lacks authority to rule on the constitutional questions.” *Sony Corp. v. Cascades Projection LLC*, Case No. IPR2015-01846, Dkt. No. 32, at 34-35 (P.T.A.B. Jan. 11, 2017).
 - That is because “challenges to the constitutionality of a statute or regulation promulgated by an agency are beyond the power or the jurisdiction of an agency.” *Gilbert v. Nat'l Transp. Safety Bd.*, 80 F.3d 364, 366–67 (9th Cir. 1996). And a party need not preserve such a challenge to later raise it in Federal Court. *Id.*
- Until the Supreme Court decides *Oil State Energy Services*, Federal Circuit jurisprudence dictates that “assigning review of patent validity to the PTO is consistent with Article III” of the Constitution.
 - *MCM Portfolio LLC v. Hewlett-Packard Co.*, 812 F.3d 1284, 1291 (Fed. Cir. 2015), *cert. denied* 137 S. Ct. 292 (2016); *see also Oil State Energy Services, LLC, v. Greene's Energy Group, LLC*, 639 Fed. App'x 639 (Fed. Cir. 2016), *cert. granted*, (U.S. Nov. 23, 2016) (No. 16-712) (denying appeal under Rule 36 without opinion).