UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

NETFLIX, INC.,

Petitioner,

v.

AVAGO TECHNOLOGIES INTERNATIONAL SALES PTE. LIMITED,

Patent Owner.

Inter Partes Review Nos. IPR2021-00303

U.S. Patent No. 8,270,992 B2

PATENT OWNER'S DEMONSTRATIVES

Pursuant to 37 C.F.R. § 42.70(b) and the Order Setting Oral Argument 37 C.F.R. § 42.70 ("Order") (Paper 22 at 3), Patent Owner Avago Technologies International Sales Pte. Limited ("Patent Owner") submits herewith Patent Owner's Demonstratives as required by the Order. Patent Owner also certifies that on March 14, 2022, Patent Owner served Patent Owner's Demonstratives on Petitioner Netflix, Inc., as required by the Order.

Respectfully submitted,

Dated: March 17, 2022

By: /s/Daniel S. Young/

Daniel S. Young, Reg. No. 48,277
Chad E. King, Reg. No. 44,187
ADSERO IP LLC D/B/A/
SWANSON & BRATSCHUN LLC
8210 Southpark Terrace
Littleton, CO 80120
(303) 268-0066 (telephone)
(833) 793-0703 (facsimile)

Counsel for Patent Owner
Avago Technologies International Sales Pte. Limited

CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. § 42.6, the undersigned hereby certifies that a copy of the foregoing **PATENT OWNER'S DEMONSTRATIVES** was filed through the Patent Trial and Appeal Board End to End (PTAB E2E) electronic filing system on March 17, 2022, with a confirmation copy served via electronic mail, on the following counsel of record for Petitioner:

Harper Batts
SHEPPARD, MULLIN, RICHTER & HAMPTON LLP
email: HBatts@sheppardmullin.com

Jeffrey Liang
SHEPPARD, MULLIN, RICHTER & HAMPTON LLP
email: JLiang@sheppardmullin.com

Chris Ponder
SHEPPARD, MULLIN, RICHTER & HAMPTON LLP
email: CPonder@sheppardmullin.com

SHEPPARD, MULLIN, RICHTER & HAMPTON LLP
email: Legal-Netflix-Broadcom-IPRs@sheppardmullin.com

Dated: March 17, 2022

By: /s/Daniel S. Young/
Daniel S. Young
Registration No. 48,277

United States Patent and Trademark Office

Patent Trial and Appeal Board

NETFLIX, INC.,

(Petitioner)

v.

AVAGO TECHNOLOGIES INTERNATIONAL SALES

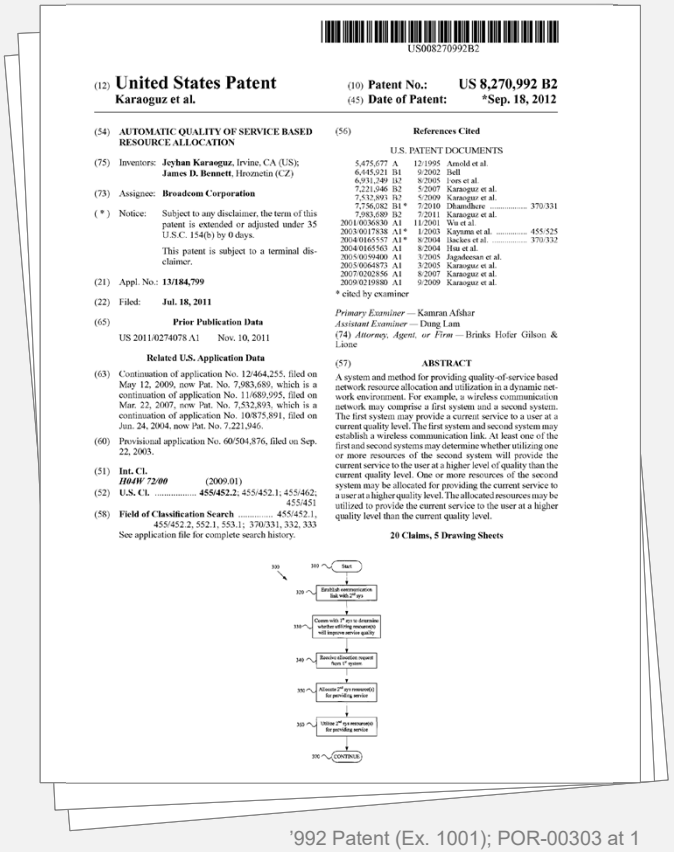
(Patent Owner)

IPR2021-00303 | U.S. Patent No. 8,270,992

Patent Owner's Demonstrative Exhibits

ADSERO IP

’992 Patent



US008270992B2

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

(10) **Patent No.: US 8,270,992 B2**
(45) **Date of Patent: *Sep. 18, 2012**

(54) **AUTOMATIC QUALITY OF SERVICE BASED RESOURCE ALLOCATION**

(75) Inventors: **Jeyhan Karaoguz**, Irvine, CA (US); **James D. Bennett**, Hroznetin (CZ)

(73) Assignee: **Broadcom Corporation**

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

This patent is subject to a terminal disclaimer.

(21) Appl. No.: **13/184,799**

(22) Filed: **Jul. 18, 2011**

(65) **Prior Publication Data**

US 2011/0274078 A1 Nov. 10, 2011

Related U.S. Application Data

(63) Continuation of application No. 12/464,255, filed on May 12, 2009, now Pat. No. 7,983,689, which is a continuation of application No. 11/889,995, filed on Mar. 22, 2007, now Pat. No. 7,532,893, which is a continuation of application No. 10/875,891, filed on Jun. 24, 2004, now Pat. No. 7,221,946.

(60) Provisional application No. 60/504,876, filed on Sep. 22, 2003.

(51) **Int. Cl.**
H04W 72/00 (2009.01)

(52) **U.S. Cl.** **455/452.2**; 455/452.1; 455/462; 455/451

(58) **Field of Classification Search** 455/452.1, 455/452.2, 552.1, 553.1; 370/331, 332, 333
See application file for complete search history.

(56) **References Cited**

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* cited by examiner

Primary Examiner — Kamran Afshar
Assistant Examiner — Dung Lam
(74) *Attorney, Agent, or Firm* — Brinks Hofer Gilson & Lione

(57) **ABSTRACT**

A system and method for providing quality-of-service based network resource allocation and utilization in a dynamic network environment. For example, a wireless communication network may comprise a first system and a second system. The first system may provide a current service to a user at a current quality level. The first system and second system may establish a wireless communication link. At least one of the first and second systems may determine whether utilizing one or more resources of the second system will provide the current service to the user at a higher level of quality than the current quality level. One or more resources of the second system may be allocated for providing the current service to a user at a higher quality level. The allocated resources may be utilized to provide the current service to the user at a higher quality level than the current quality level.

20 Claims, 5 Drawing Sheets

’992 Patent (Ex. 1001); POR-00303 at 1

AUTOMATIC QUALITY OF SERVICE BASED RESOURCE ALLOCATION

A system and method for providing quality-of-service based network resource allocation and utilization in a dynamic network environment. For example, a wireless communication network may comprise a first system and a second system. The first system may provide a current service to a user at a current quality level. The first system and second system may establish a wireless communication link. At least one of the first and second systems may determine whether utilizing one or more resources of the second system will provide the current service to the user at a higher level of quality than the current quality level. One or more resources of the second system may be allocated for providing the current service to a user at a higher quality level. The allocated resources may be utilized to provide the current service to the user at a higher quality level than the current quality level.

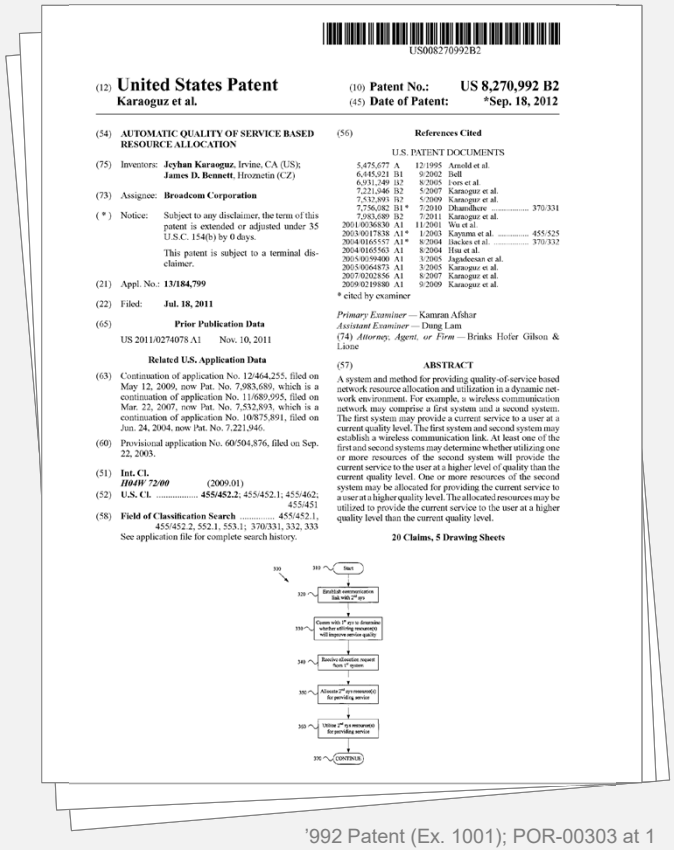
’992 Patent (Ex. 1001) at Abstract

’992 Patent | Ground | IPR2021-00303

GROUND	CLAIMS	BASIS	PRIOR ART
1	1-14 and 16-19	§ 103	Barnes and Shaw

Pet. at 9

’992 Patent



US008270992B2

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

(10) **Patent No.: US 8,270,992 B2**
(45) **Date of Patent: *Sep. 18, 2012**

(54) **AUTOMATIC QUALITY OF SERVICE BASED RESOURCE ALLOCATION**

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(58) **Field of Classification Search** 455/452.1; 455/452.2, 552.1, 553.1; 370/331, 332, 333
See application file for complete search history.

(56) **References Cited**

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7,756,082	B1 *	7/2010	Dhandhere	370/331
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* cited by examiner

Primary Examiner — Kamran Afshar
Assistant Examiner — Dung Lam
(74) *Attorney, Agent, or Firm* — Brinks Hofer Gilson & Lione

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A system and method for providing quality-of-service based network resource allocation and utilization in a dynamic network environment. For example, a wireless communication network may comprise a first system and a second system. The first system may provide a current service to a user at a current quality level. The first system and second system may establish a wireless communication link. At least one of the first and second systems may determine whether utilizing one or more resources of the second system will provide the current service to the user at a higher level of quality than the current quality level. One or more resources of the second system may be allocated for providing the current service to a user at a higher quality level. The allocated resources may be utilized to provide the current service to the user at a higher quality level than the current quality level.

20 Claims, 5 Drawing Sheets

’992 Patent (Ex. 1001); POR-00303 at 1

’992 Patent

AUTOMATIC QUALITY OF SERVICE BASED RESOURCE ALLOCATION

Patent Owner’s Response

user can be improved. While the Challenged Claims relate to the improvement of a digital media **service** to a user, the Challenged Claims seek to improve this service in part by increasing the quality of the media **content**. In contrast, the alleged

POR-00303 at 1

’992 Patent | Claims 1 and 6

Claim 1 is a Method and Claim 6 is a System to Perform this Method

’992 Patent

1. In a portable system, a method for providing a digital media service to a user, the method comprising:

delivering digital media content having a current quality level to a user;

determining that a network connection with a second system is available and is characterized by a communication bandwidth that is high enough to provide the digital media content to the user at a quality level higher than the current quality level;

using the network connection to obtain the digital media content at the higher quality level from the second system; and

delivering the digital media content at the higher quality level to the user instead of the digital media content at the current quality level.

’992 Patent (Ex. 1001) at 26:29-43; POR-00303 at 10-11

’992 Patent | Claims 1 and 6

Preamble [1a]	In a portable system, a method for providing a digital media service to a user, the method comprising:
First Delivering Limitation [1b]	**delivering** digital media content having a current quality level to a user;
Determining Limitation [1c]	**determining** that a network connection with a second system is available and is characterized by a communication bandwidth that is high enough to provide the digital media content to the user at a quality level higher than the current quality level;
Using Limitation [1d]	**using** the network connection to obtain the digital media content at the higher quality level from the second system; and
Second Delivering Limitation [1d]	**delivering** the digital media content at the higher quality level to the user instead of the digital media content at the current quality level.

POR-00303 at 11

’992 Patent | Claims 11 and 16

Claim 11 is a Method and Claim 16 is a System to Perform this Method

’992 Patent

11. In a portable system, a method for providing a digital media service to a user, the method comprising:

delivering digital media content having a current quality level to a user;

communicating with a second system regarding communication bandwidth of a network connection with the second system;

determining, based at least in part on said communicating, that the network connection is available and characterized by at least a minimum determined communication bandwidth;

in response to at least said determining, utilizing the network connection to receive the digital media content at a quality level higher than the current quality level; and

delivering the digital media content at the higher quality level to the user instead of the digital media content at the current quality level.

’992 Patent (Ex. 1001) at 27:21-38; POR-00303 at 12-13

’992 Patent | Claims 11 and 16

Preamble [11a]	In a portable system, a method for providing a digital media service to a user, the method comprising:
First Delivering Limitation [11b]	**delivering** digital media content having a current quality level to a user;
Communicating Limitation [11c]	**communicating** with a second system regarding communication bandwidth of a network connection with the second system;
Determining Limitation [11d]	**determining**, based at least in part on said communicating, that the network connection is available and characterized by at least a minimum determined communication bandwidth;
Utilizing Limitation [11e]	in response to at least said determining, **utilizing** the network connection to receive the digital media content at a quality level higher than the current quality level; and
Second Delivering Limitation [11e]	**delivering** the digital media content at the higher quality level to the user instead of the digital media content at the current quality level.

POR-00303 at 13

All the Challenged Claims Include the Following Elements:

i) a portable system and a second system;

ii) a digital media service;

iii) a user;

iv) digital media content with a current quality level and a quality level higher;

and

v) a network connection with a communication bandwidth that is high enough / a minimum determined communication bandwidth.

POR-00303 at 13-14

'992 Patent | Prosecution History

Applicant specifically amended the Challenged Claims in its March 16, 2012 response to make clear that the terms "a current quality level" and "a quality level higher" refer specifically to the digital media content and not to the digital media service generally

Claim 38 was renumbered to Claim 1 upon allowance

POR-00303 at 15-16

Patent Owner's Response

38. (Currently Amended) In a portable system, a method for providing a digital media service to a user, the method comprising:

~~providing a~~ delivering digital media content having a current quality level ~~service~~ to a user ~~at a current quality level~~;

determining that a network connection with a second system is available and is characterized by a communication bandwidth that is high enough to provide the digital media ~~service~~ content to the user at a quality level higher than the current quality level; ~~and~~

~~in response to at least said determining, utilizing the network connection to provide the digital media service to the user at a quality level higher than the current quality level.~~

using the network connection to obtain the digital media content at the higher quality level from the second system; and

delivering the digital media content at the higher quality level to the user instead of the digital media content at the current quality level.

POR-00303 at 15; File History (Ex. 1002) at 43; POSR at 5-7

'992 Patent | Prosecution History

With these amendments, Applicant successfully traversed the prior art reference (Jagadeesan) that disclosed improving a digital media service by improving the communication "link quality" – not the quality of the digital media content

File History – Applicant's Response – March 16, 2012

cellular network communication link. (Jagadeesan, paragraphs [0032] and [0033]). However, though Jagadeesan may disclose a mobile station switching between communication links based on link quality, the source of the **content** transmitted across the communication links (*i.e.*, the voice data) remains the same. Indeed, Jagadeesan specifically states "[a] **handoff of the existing call** may occur" if the link quality of a second communication link is greater than the link quality of the communication link currently used by the mobile station. (Jagadeesan, paragraph **[0035]**, Emphasis added). That is, in Jagadeesan, prior to transmission by either the WLAN or the cellular network, the voice data is the same. And as a whole, Jagadeesan fails to disclose or suggest obtaining voice data from another source, let alone obtaining digital media content at a higher quality level from the second system, as recited in claim 38. As such, Jagadeesan also necessary fails to teach, disclose, or suggest delivering the digital media content at the higher quality level to the user instead of the digital media content at the current quality level, as recited in claim 38. Thus, Assignee submits Jagadeesan fails to teach, disclose, or suggest all the features recited in claim 38.

File History (Ex. 1002) at 50; POR-00303 at 17

Petitioner's Expert agreed that Applicant distinguished prior art by making a distinction between media content and network connection

Petitioner's Expert: Dr. Myler

Q. Okay. So the Applicant here is making a distinction between media content and network communication, correct, or network connection?

A. Oh, right. Yes, okay. So -- so the media content, it's the same file, let's say, and it's coming -- and Jagadeesan is saying you're switching between communication links picking the better link quality to get the same data.

Q. Correct. That's your understanding of that argument?

A. Yes.

Testimony of Dr. Myler (Ex. 2003) at 230:16-231:3; POR-00303 at 18

Examiner Agreed with Applicant's Positions in its Notice of Allowance

File History

Allowable Subject Matter

In view of amended claims, approved Terminal Disclaimer, and further search, claims 38-57 are allowed.

The following is an examiner's statement of reasons for allowance:

Claims 38-57 are allowed for the reasons as set forth in applicant's response filed on 3/16/12.

File History (Ex. 1002) at 21; POR-00303 at 17-18

’992 Patent | Challenged Claims – "Digital Media Service"

Each of the Challenged Claims is either a method or system "for providing a digital media service."

’992 Patent

providing a service to the user. A “service” is generally a function performed by the first system for the ultimate benefit of the user. For example and without limitation, a service may comprise an audio output service, a video output service, a textual interface service, an audio interface service, a video interface service, a data processing service, an email service, etc. Accordingly, the scope of various aspects of the present

’992 Patent (Ex. 1001) at 3:16-22; POR-00303 at 40-41

'992 Patent | Challenged Claims – "Digital Media Service"

Petitioner's expert testified that there are two different portions of a digital media service:

1. "digital media content" and
2. "a server to deliver such content through a network connection"

Petitioner's Expert: Dr. Myler

Q. What's a "digital media service"?

A. It's media, which typically, "media" implies some sort of specifically formatted information like images… And a digital media service would be coming from a server, being served up and available to a user for their -- the consumption of the media. I think that term is actually used, "consumption of the media." I'm talking about the POSITA would know what that means.

* * *

Q. Okay. So for -- I think I got this right, but from -- from -- from the term "digital media service," you have a digital media content portion, like the JPEG as an example, and then you have the server portion, which is like how that media content is being delivered through a network, as an example; is that fair?

A. I think so. I think that's fair to say. The digital media service is a server delivering somehow digital media.

Testimony of Dr. Myler (Ex. 2003) at 150:24-151:2; 151:16-25; POR-00303 at 41

’992 Patent | Challenged Claims – Quality Levels of "Digital Media Content"

The specification of the ’992 Patent provides examples of different quality levels of digital media content

’992 Patent

has access. For example, the second system may have access to higher quality information than the first system. As an example, such higher quality information may include information encoded utilizing a lower loss encoding technique than used to encode the information to which the first system has access. As another example, such higher quality information may include information to which the second system has access and to which the first system has no access.

’992 Patent (Ex. 1001) at 6:11-18; POR-00303 at 41-42

’992 Patent | Challenged Claims – Quality Levels of "Digital Media Content"

The "current quality level" of the "digital media content" is defined in the Challenged Claims before a network connection is mentioned.

’992 Patent

1. In a portable system, a method for providing a digital media service to a user, the method comprising:

delivering digital media content having a current quality level to a user;

determining that a network connection with a second system is available and is characterized by a communication bandwidth that is high enough to provide the digital media content to the user at a quality level higher than the current quality level;

using the network connection to obtain the digital media content at the higher quality level from the second system; and

delivering the digital media content at the higher quality level to the user instead of the digital media content at the current quality level.

’992 Patent (Ex. 1001) at 26:29-43; POR-00303 at 41-43

’992 Patent | Challenged Claims – "Network Connection"

The specification of the ’992 Patent makes clear that having access to higher digital media content from a second system depends greatly on whether the first system can establish a sufficient network connection with the second system.

’992 Patent

The information regarding access to various information sources may also include information of the media over which such access exists. For example, access to various information sources may comprise local access or networked access. The type of access to various information sources, as well as the quality of the information, may be considered in determining whether utilizing various resources of the second system will provide the current service to the user at a higher quality level. For example, access to high quality information over a communication network may be of little value in certain scenarios if the communication network is slow or unreliable.

’992 Patent (Ex. 1001) at 6:19-30; POR-00303 at 43-44

’992 Patent | Challenged Claims – "Network Connection"

’992 Patent

1. In a portable system, a method for providing a digital media service to a user, the method comprising:

delivering digital media content having a current quality level to a user;

determining that a network connection with a second system is available and is characterized by a communication bandwidth that is high enough to provide the digital media content to the user at a quality level higher than the current quality level;

using the network connection to obtain the digital media content at the higher quality level from the second system; and

delivering the digital media content at the higher quality level to the user instead of the digital media content at the current quality level.

’992 Patent (Ex. 1001) at 26:29-43; POR-00303 at 42-44

’992 Patent | Challenged Claims – "Digital Media Content" and "Network Connection"

’992 Patent makes clear, two important considerations of the inventions described in the ’992 Patent are (1) the quality of the information and (2) the access to such information

Each of the Challenge Claims Require

Patent Owner Response

i) digital media content with a current quality level and a quality level higher;

and

ii) a network connection that is available and has a communication bandwidth high enough / a minimum determined communication bandwidth

POR-00303 at 40-45

’992 Patent | Service Quality Metrics

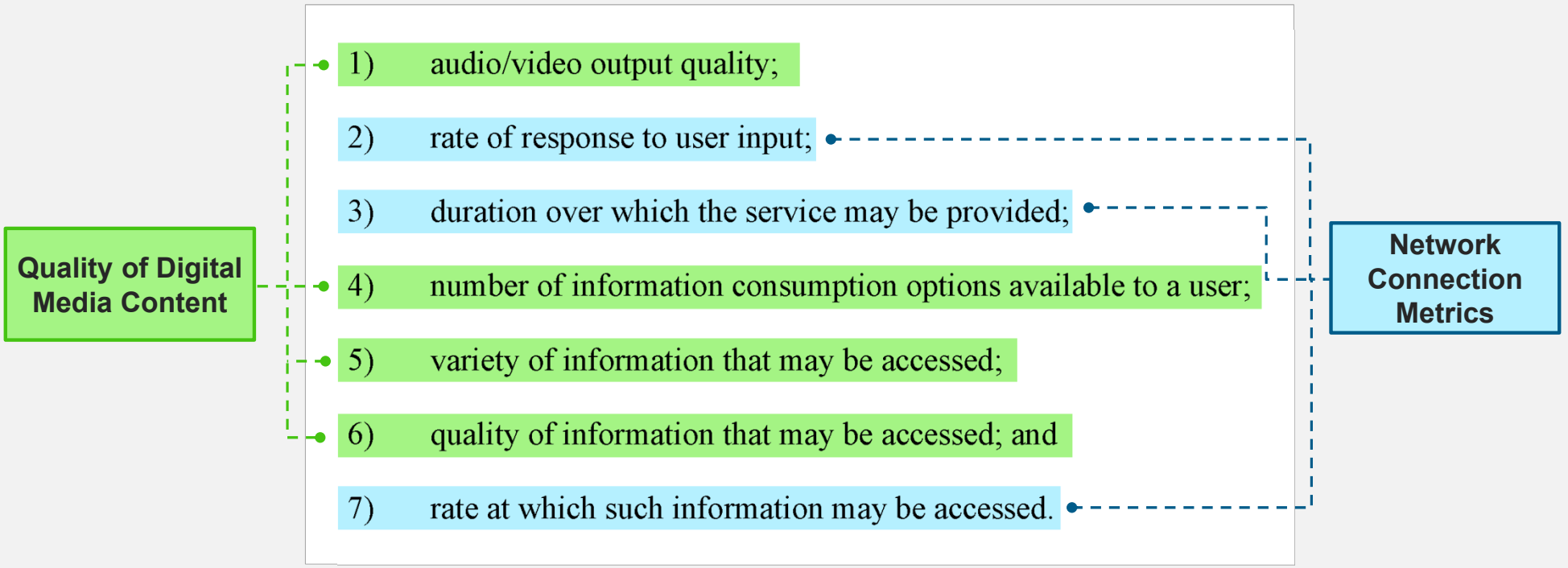
’992 Patent

Referring back to FIG. **1**, the method **100**, at step **150**, may determine whether utilizing the second system (or various resources thereof) will increase the quality at which the current service is being provided to the user. The first system and second system may, for example, communicate a variety of information over the communication link established at step **140** to make such a determination. Generally, the quality determination may involve any of a large variety of quality metrics (e.g., audio/video output quality, rate of response to user input, duration over which the service may be provided, number of information consumption options available to a user, variety of information that may be accessed, quality of information that may be accessed, rate at which such information may be accessed, etc.). Accordingly, the scope of various aspects of the present invention should not be limited by characteristics of one or more particular service quality metrics.

’992 Patent (Ex. 1001) at 4:25-41; POR-00303 at 45-49

'992 Patent | Service Quality Metrics

Patent Owner Response



'992 Patent (Ex. 1001) at 4:25-41; POR-00303 at 45-47

Quality Metric 1 – "audio/video output quality"

Petitioner's Expert: Dr. Myler

Q. Okay. So this generally relates to the quality of the media content itself. So as an example, just as an example, a video that is stored in an HD format would be of a higher quality than media -- a media file stored in an SD or standard definition file type; is that fair?

A. Yes, that's what a POSITA would agree with that, that HD is better than standard. And -- and the name implies it.

Testimony of Dr. Myler (Ex. 2003) at 170:25-171:8); POR-00303 at 47

Quality Metric 6 – "quality of information that may be accessed"

Petitioner's Expert: Dr. Myler

Q. Okay. And then -- and maybe I skipped ahead a bit here, but the next one says a quality -- quality of information to be accessed. Do you see that?

A. Yes.

Q. Okay. And what would that mean to a person of ordinary skill?

A. Well, since this is -- we're talking about quality metrics, there may be -- the information, you might have multiple video files of the exact same material at the same resolution, same frame rates, one of the media files was digitally mastered and the other media file somebody snuck a camcorder into a movie theater and recorded a movie, you know, to bootleg, kind of thing.

Q. Uh-huh.

A. I think we can say the digitalization scheme would affect the quality of the information that can be accessed. So that would be one example of this, you know, coming off of what would a POSITA think of this metric.

Testimony of Dr. Myler (Ex. 2003) at 177:22-178:17; POR-00303 at 46-47

Quality Metric 7 – "rate at which such information may be accessed"

Petitioner's Expert: Dr. Myler

Q. So what would a person of ordinary skill in the art view or understand that metric to be?

A. Well, that metric could be -- could be is the network speed fast enough, high enough rate to access that information, and if it's not -- we're talking about a quality metric here. So, you know, what -- what -- how does that impact the quality -- the quality that we can -- that we can access. So that -- that's the rate of which such information may be accessed.

We were talking about dropping – thinning and dropping frames and things like that, that that impacts the rate and ultimately will impact the quality.

Testimony of Dr. Myler (Ex. 2003) at 178:22-179:10; POR-00303 at 47-49

'992 Patent | Service Quality Metrics – "Thinning"

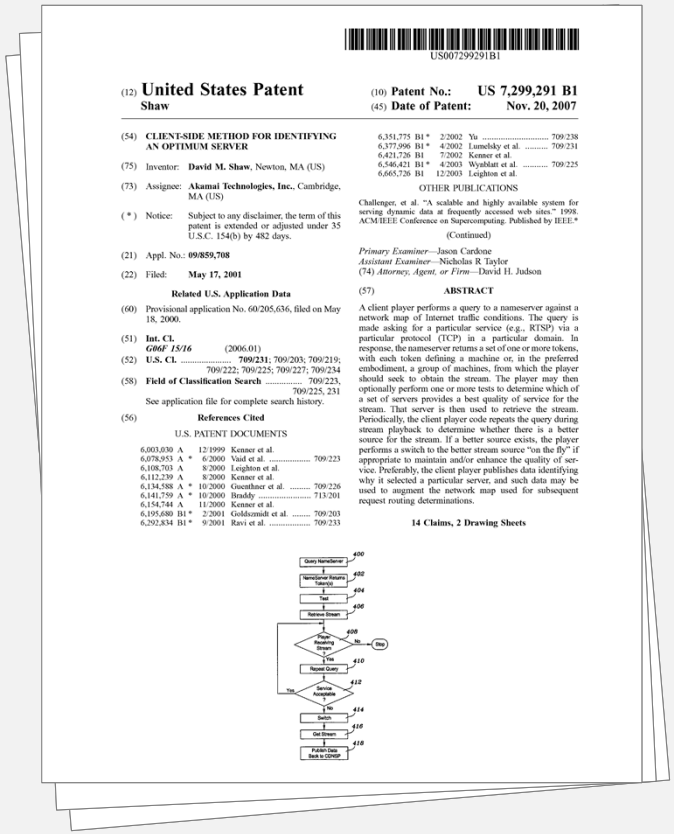
No Dispute that "thinning" relates to the Quality of Network Connection

Patent Owner's Expert: Dr. AlRegib

91. I find it notable that Dr. Myler raised the concept of "thinning" from Shaw when discussing the seventh metric (which we both agree relates to access to information, not the quality of information). Of all the reasons Shaw discloses that a stream might be unacceptable (and therefore justify switching sources for that stream), the only one that conceivably relates to the media content of the stream itself is the concept of thinning. *See supra* ¶¶ 67-69. Yet, Dr. Myler has indicated that, within the framework of the '992 Patent, the concept of thinning is entirely a phenomenon of access to the information, not the quality of information. *See supra* ¶ 90. At least as used by Shaw, and within the context of the '992 Patent, which clearly considers the inherent quality of the media content to be independent of any connectivity issues that affect access to that content, I find no reason to disagree with Dr. Myler's assessment that thinning relates to the quality of the network connection.

Declaration of Dr. AlRegib (Ex. 2002) at ¶ 91; POR-00303 at 48

’992 Patent | Shaw Reference – Content Delivery Network



US007299291B1

(12) **United States Patent**
Shaw

(10) **Patent No.: US 7,299,291 B1**
(45) **Date of Patent: Nov. 20, 2007**

(54) **CLIENT-SIDE METHOD FOR IDENTIFYING AN OPTIMUM SERVER**

(75) Inventor: **David M. Shaw**, Newton, MA (US)

(73) Assignee: **Akamai Technologies, Inc.**, Cambridge, MA (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 482 days.

(21) Appl. No.: **09/859,708**

(22) Filed: **May 17, 2001**

Related U.S. Application Data

(60) Provisional application No. 60/205,636, filed on May 18, 2000.

(51) **Int. Cl.**
G06F 15/16 (2006.01)

(52) **U.S. Cl.** **709/231**; 709/203; 709/219; 709/222; 709/225; 709/227; 709/234

(58) **Field of Classification Search** 709/223, 709/225, 231
See application file for complete search history.

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(Continued)

Primary Examiner—Jason Cardone
Assistant Examiner—Nicholas R. Taylor
(74) *Attorney, Agent, or Firm*—David H. Judson

(57) **ABSTRACT**

A client player performs a query to a nameserver against a network map of Internet traffic conditions. The query is made asking for a particular service (e.g., RTSP) via a particular protocol (TCP) in a particular domain. In response, the nameserver returns a set of one or more tokens, with each token defining a machine or, in the preferred embodiment, a group of machines, from which the player should seek to obtain the stream. The player may then optionally perform one or more tests to determine which of a set of servers provides a best quality of service for the stream. That server is then used to retrieve the stream. Periodically, the client player code repeats the query during stream playback to determine whether there is a better source for the stream. If a better source exists, the player performs a switch to the better stream source "on the fly" if appropriate to maintain and/or enhance the quality of service. Preferably, the client player publishes data identifying why it selected a particular server, and such data may be used to augment the network map used for subsequent request routing determinations.

14 Claims, 2 Drawing Sheets

Shaw

The present invention relates generally to high-performance, fault-tolerant content delivery in a content delivery network (CDN).

(CDN). A CDN is a network of geographically distributed content delivery nodes that are arranged for efficient delivery of digital content (e.g., Web content, streaming media

Shaw ’291 Patent (Ex. 1005) at 1:13-15; 2:40-42; POR-00303 at 25-26

'992 Patent | Shaw Reference – Multiple Copies of the Same Stream

Shaw

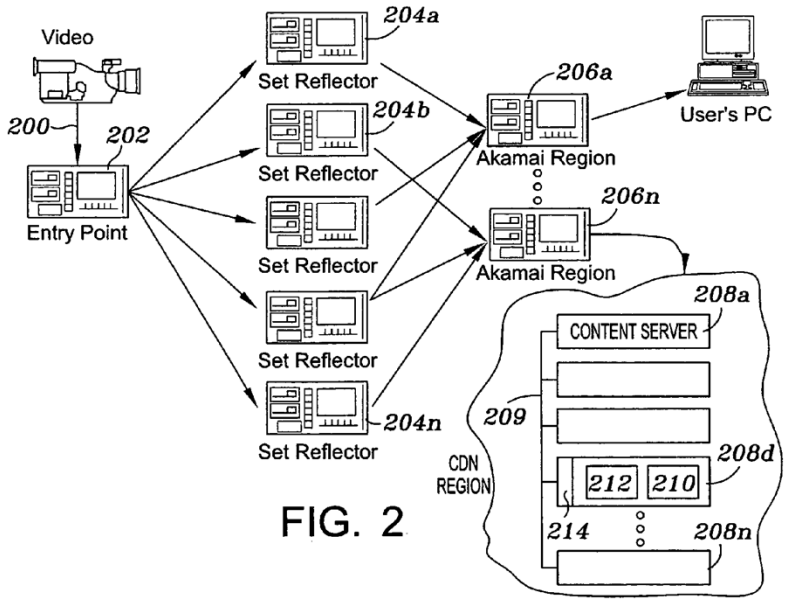


FIG. 2

Shaw '291 Patent (Ex. 1005) at Fig. 2; POR-00303 at 26

FIG. **2** is a simplified diagram illustrating how live streaming can be further enhanced by having the CDN send multiple copies of the same stream over different routes from a CDN entry point to the optimal streaming server at the edge of the Internet;

From a network perspective, traditional approaches to streaming Internet content involve transmitting a streaming signal from a source to a device known as a splitter (or repeater, reflector or mirror), which, in turn, replicates the source signal into multiple signals. Each of the multiple signals is the same, and each is sent on to a different destination. By cascading splitters in a tree-like fashion, a single source stream can be replicated into thousands or more identical copies. In this manner, a large number of viewers on the Internet can receive the same streaming signal simultaneously

Shaw '291 Patent (Ex. 1005) at 4:22-26, 2:27-37; POR-00303 at 26-27

Shaw teaches the distribution of identical copies of media throughout a Content Delivery Network

Petitioner's Expert: Dr. Myler

Q. Okay. So in this particular figure – and I'm going to try to summarize it, and you can tell me if this is an accurate summary or not -- some media content is created; it goes to an entry point; copies -- identical copies of that media gets sent to the reflectors; the reflectors then send them to the individual regions; and then within each region, those copies get put on various edge servers. So the content from a single source gets distributed in identical copies throughout the network and end up on these various edge servers; is that a fair summary?

A. I'm going to say that's a fair high-level summary of -- of what's happening here.

Testimony of Dr. Myler (Ex. 2003) at 33:17-34:7; POR-00303 at 27

’992 Patent | Shaw Reference – Fig. 3 – Media Client Player

Shaw

FIG. **3** illustrates a representative client browser having a streaming media client player that is enhanced to include the functionality of the present invention; and

functionality. In a representative embodiment, this code comprises several processes, namely, a DNS lookup process **304**, a server testing process **306**, a decision process **308**, and a stream switch process **310**. These processes are shown

Shaw ’291 Patent (Ex. 1005) at 4:27-29, 7:11-14; POR-00303 at 28-29

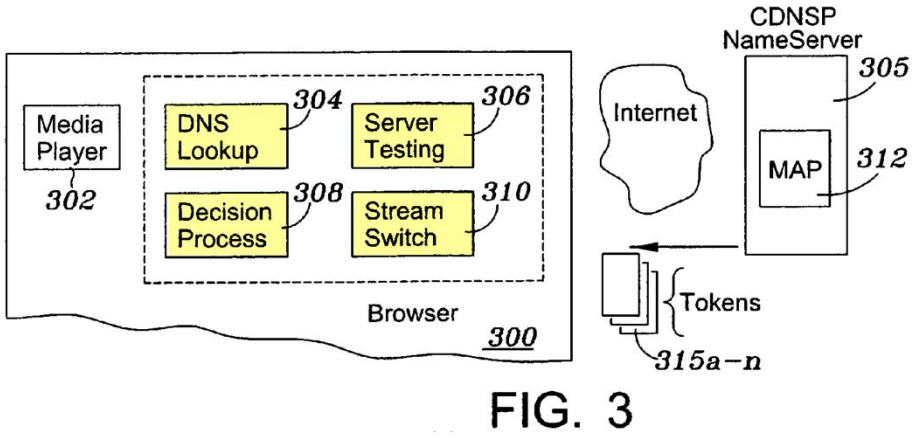


FIG. 3

Shaw ’291 Patent (Ex. 1005) at Fig. 3; POR-00303 at 28-29

'992 Patent | Shaw Reference – Fig. 3 – Media Client Player

DNS Lookup (304)

Patent Owner's Response

DNS lookup process **304** performs a DNS lookup at a NameServer 305 and receives back tokens 315*a-n* where each "token 315 provides a distinct answer to the query and defines a machine or, in the preferred embodiment, a group of machines, from which the client should seek to obtain **the stream**." *Id.* at 7:26-46; *see also*

POR-00303 at 30

Shaw

With reference to the illustrative FIG. **3** embodiment, the DNS lookup process **304** is operative prior to and/or during receipt of a given stream for performing a given DNS lookup at a a nameserver **305** against a map **312** of current Internet traffic conditions maintained at that nameserver, for example, by a CDN service provider. In one particular embodiment, the lookup process performs a DNS SRV lookup. The query preferably comprises given information, e.g., the IP address of the client player, the IP address of the player's local nameserver, and the media type requested. DNS SRV is a known protocol defined in RFC 2052 or RFC 2782, and this protocol enables administrators to designate some hosts as primary servers for a service and others as backups. In this embodiment, a DNS SRV query is made asking for a particular service (in this case, RTSP) via a particular protocol (TCP) in a particular domain. The nameserver responds to the query with a set of tokens **315***a-n*. Each token **315** provides a distinct answer to the query and defines a machine or, in the preferred embodiment, a group of machines, from which the client should seek to obtain the stream (identified by the URL). The

Shaw '291 Patent (Ex. 1005) at 7:26-46; POR-00303 at 30

Server Testing (306)

Patent Owner's Response

Once the client browser obtains a list of server locations from which it can obtain the desired content, the browser then uses server testing process **306** to determine which service to initially connect with to obtain the content. With respect

POR-00303 at 30

Shaw

RTSP "OPTIONS" command. The response from each server will be a static text string. The request-response is timed by the server testing process, which then determines the "best" server (e.g., usually the one providing the fastest response). In this way, the server testing may be used to "fine tune" the server chosen by the CDN DNS request routing system with an additional piece of information, namely, the actual pipe the client is using for the connection.

Once the fastest responding server is selected, the client connects to it and sends a usual command, e.g., the RTSP DESCRIBE command. According to the invention, the

Shaw '291 Patent (Ex. 1005) at 8:22-31; POR-00303 at 30

Petitioner's Expert: Dr. Myler

Q. Okay. So is there a difference between the, quote, "one providing the fastest response" and the "one with the best bandwidth?"

A. Yes.

Q. Okay. And what is that difference?

A. Well, this is implying that -- it says the request response is timed. So the client sends a request and then the server responds. And one way to do this is to send out a request to multiple servers and see which one comes back the fastest. And, in fact, that's what happens if we've got a phone app that's like a speed test for the network. The first thing it does is send out a ping, that's why I mentioned "ping," and the server that comes back the fastest with the ping is the one that was, oh, they're paying attention. Let's use them.

Testimony of Dr. Myler (Ex. 2003) at 65:12-66:2; POR-00303 at 30-31

'992 Patent | Shaw Reference – Fig. 3 – Media Client Player

Decision Process (308)

Shaw

requested data to the user. This also gives the system a chance to re-assign the stream, e.g., via a redirect message. If the fastest responding server is indeed the correct server to stream from, then the X-CDNSP-Times header can be ignored by the server. Another function provided by the present invention is the ability of the client player (namely, the code running in that player) to identify a "better" source for a stream being received and to switch to that source "on the fly," i.e., while the stream is being received and rendered on the client. The decision process **308** is used to determine whether the player should switch servers mid-stream. Because it is likely there will be some cost to switching (e.g., perhaps a short interruption in service), a client should only switch servers if it is not getting an acceptable stream from the first server. The decision process **308** makes a decision regarding whether the stream being received is "acceptable," e.g., a stream that is not currently being thinned by the server, or some other metric. As used herein, "acceptable"

Shaw '291 Patent (Ex. 1005) at 9:19-27; POR-00303 at 31-33

Petitioner's Expert: Dr. Myler

Q. Yes, paragraph 72 on page 42 of your declaration, which has been marked as Exhibit 1 in this -- in this deposition.

A. Yes.

Q. Okay. So in this -- in this paragraph, when you discuss thinning -- I just want to make sure that I'm understanding it right, and I'll highlight it on the screen here it says:

"In other words, when a server detects that **there's an insufficient communication bandwidth between the server and the client**, the server may, quote, 'thin' the stream by dropping information, (example: Frames from the stream) so that the client can keep up."

Do you see that?

A. Yes.

Q. Do you -- you do believe that that is an accurate description of what thinning means when that is used in the Shaw reference?

A. I think it's accurate, yes.

Testimony of Dr. Myler (Ex. 2003) at 114:20-115:14; POR-00303 at 31-33; POSR at 8-10

’992 Patent | Shaw Reference – Fig. 3 – Media Client Player

Decision Process (308)

The client browser is still receiving and rendering the same stream after the switch

Petitioner’s Expert: Dr. Myler

Q. Okay. So going back to our original example, with respect to Figure 3. Block 304 of the DSN look-up, let's say, for example, sends out the query, comes back with three tokens from three different servers that have the stream that it wants. It selects the best, which, in this case, is the fastest response one. Then, during that process of watching the -- the video, whatever the stream is, there becomes some degradation in the network connection, and it's no longer an acceptable stream. Block 308 would then decide to potentially switch to get the same stream from a different server that has a better network connection. Is that a fair example of how the client browser functionality of Shaw works?

A. I -- I think that's how we interpret it on reading it.

Testimony of Dr. Myler (Ex. 2003) at 74:25-75:17; POR-00303 at 33-34

'992 Patent | Shaw Reference – Fig. 3 – Media Client Player

Stream Switch (310)

Stream switch 310 implements the switch to receive the same digital media content from the second server that was initially being received from the first server, but through a better network connection

Ex. 2002 at ¶ 74

Shaw

the actual switch from one server to another. The particular technique used for switching from a first server to a second server typically is media type-dependent and any convenient technique may be used. Thus, for example, assume a stream

Shaw '291 Patent (Ex. 1005) at 9:40-42; POR-00303 at 34

Shaw provides examples of such switching processes, including:

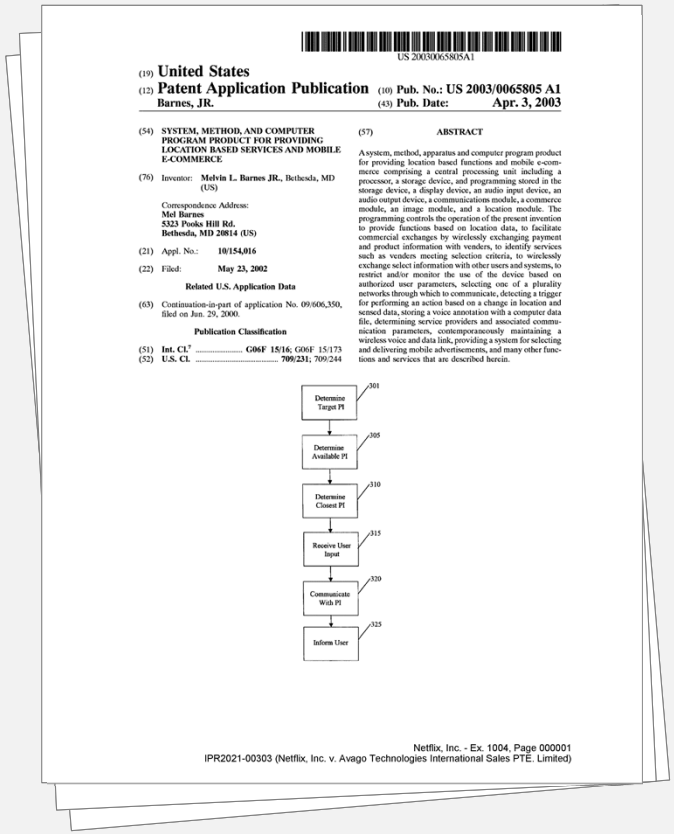
(a) buffering the stream from the first server and then switching to receiving the stream from the second server,

(b) matching data packets from the stream being received by both the first and second servers, and

(c) synchronizing a voice stream

POR-00303 at 34

’992 Patent | Barnes Reference



US 20030065805A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2003/0065805 A1**

Barnes, JR. (43) **Pub. Date: Apr. 3, 2003**

(54) **SYSTEM, METHOD, AND COMPUTER PROGRAM PRODUCT FOR PROVIDING LOCATION BASED SERVICES AND MOBILE E-COMMERCE**

(76) Inventor: **Melvin L. Barnes JR.**, Bethesda, MD (US)

Correspondence Address:
Mel Barnes
5323 Pooks Hill Rd.
Bethesda, MD 20814 (US)

(21) Appl. No.: **10/154,016**

(22) Filed: **May 23, 2002**

Related U.S. Application Data

(63) Continuation-in-part of application No. 09/606,350, filed on Jun. 29, 2000.

Publication Classification

(51) **Int. Cl.**[7] **G06F 15/16**; G06F 15/173

(52) **U.S. Cl.** **709/231**; 709/244

(57) **ABSTRACT**

A system, method, apparatus and computer program product for providing location based functions and mobile e-commerce comprising a central processing unit including a processor, a storage device, and programming stored in the storage device, a display device, an audio input device, an audio output device, a communications module, a commerce module, an image module, and a location module. The programming controls the operation of the present invention to provide functions based on location data, to facilitate commercial exchanges by wirelessly exchanging payment and product information with venders, to identify services such as venders meeting selection criteria, to wirelessly exchange select information with other users and systems, to restrict and/or monitor the use of the device based on authorized user parameters, selecting one of a plurality networks through which to communicate, detecting a trigger for performing an action based on a change in location and sensed data, storing a voice annotation with a computer data file, determining service providers and associated communication parameters, contemporaneously maintaining a wireless voice and data link, providing a system for selecting and delivering mobile advertisements, and many other functions and services that are described herein.

Netflix, Inc. - Ex. 1004, Page 000001
IPR2021-00303 (Netflix, Inc. v. Avago Technologies International Sales PTE. Limited)

Barnes

SYSTEM, METHOD, AND COMPUTER PROGRAM PRODUCT FOR PROVIDING LOCATION BASED SERVICES AND MOBILE E-COMMERCE

Barnes (Ex. 1004); POR-00303 at 18-19

Petitioner relies on Barnes' disclosure of a process to determine when to switch to a different communication network

1. None of these switching conditions addresses the quality of the digital media content.

   POR-00303 at 19-25

2. In his extensive testimony on Barnes' network switching conditions, Petitioner's expert never once mentioned that any of these conditions relate to switching a network connection to improve the quality of the digital media content being consumed by the user. Indeed, Petitioner's expert never used the word "quality" in his entire description of the network switching conditions in paragraph [0074] of Barnes.

   Testimony of Dr. Myler (Ex. 2003) at 130:15-137:2; POR-00303 at 21-24

3. Moreover, Petitioner's expert also provided extensive testimony on paragraphs [0069]-[0073] of Barnes – paragraphs that the Petitioner relies heavily on in its Petition – and never mentioned the quality of the digital media content provided to the user on device 101.

   Testimony of Dr. Myler (Ex. 2003) at 119:20-129:16; POR-00303 at 24.

'992 Patent | Claims 1 and 6 – Barnes and Shaw Do Not Teach the Determining Limitation

The Determining Limitation requires a determination of "a network connection" with a "second system" that is "high enough" to "provide the digital media content to the user at a quality level higher than the current quality level"

Neither Shaw nor Barnes disclose the Determining Limitation as Petitioner confuses the overall quality level of the digital media service with the quality levels of the digital media content itself

POR-00303 at 49-52

Patent Owner's Response

Preamble [1a]	In a portable system, a method for providing a digital media service to a user, the method comprising:
First Delivering Limitation [1b]	**delivering** digital media content having a current quality level to a user;
Determining Limitation [1c]	**determining** that a network connection with a second system is available and is characterized by a communication bandwidth that is high enough to provide the digital media content to the user at a quality level higher than the current quality level;

POR-00303 at 11

'992 Patent | Claims 1 and 6 – Barnes and Shaw Do Not Teach the Determining Limitation

Shaw discloses switching servers to obtain a better network connection – not to receive a higher quality of digital media content

Shaw

ignored by the server. Another function provided by the present invention is the ability of the client player (namely, the code running in that player) to identify a "better" source for a stream being received and to switch to that source "on the fly," i.e., while the stream is being received and rendered on the client. The decision process 308 is used to determine

Shaw '291 Patent (Ex. 1005) at 9:14-19

the first server. The decision process **308** makes a decision regarding whether the stream being received is "acceptable," e.g., a stream that is not currently being thinned by the server, or some other metric. As used herein, "acceptable"

Shaw '291 Patent (Ex. 1005) at 9:24-27

on the client. The decision process **308** is used to determine whether the player should switch servers mid-stream. Because it is likely there will be some cost to switching (e.g., perhaps a short interruption in service), a client should only switch servers if it is not getting an acceptable stream from the first server. The decision process 308 makes a decision

Shaw '291 Patent (Ex. 1005) at 9:19-24; *see also* POR 00303 at 29-33; 49-52

'992 Patent | Claims 1 and 6 – Barnes and Shaw Do Not Teach the Determining Limitation

Barnes – Condition 1 – Addresses Network Connection and not Quality of Media Content

Barnes

conditions may include one or more of 1) changes in network conditions such as failure of a first network or the first network slowing down (due to high use such as multiple users and/or high levels of data being communicated), such as below a predetermined level (e.g., threshold speed), or increases in noise, 2) the user making a request, or attempt-

Barnes (Ex. 1004) at ¶ 0074; POR-00303 at 18-25

Dr. Myler confirmed that this network switching condition addresses changes in network conditions

Petitioner's Expert: Dr. Myler

Q. Okay. So I would like to go through each of those eight conditions. So I've highlighted the first condition. Can you describe for me what the first condition of -- for the network switching conditions in paragraph 74 of Barnes talks about?

A. Oh, okay. So changes in network conditions, and some of those conditions might include failure of the network or slowing down of the network. And that could be due to a number of different things, high use, i.e., multiple users and/or high level of data being communicated and -- or below a predetermined level, a threshold speed, or -- which, of course, bitrates drop for some reason, or increases in noise, which, of course, would degrade the channel.

Q. Okay. So, basically, they're just certain type of network conditions that are changed, and because of that change, it would want to switch for whatever reason; is that a fair summary?

A. Well, it's saying the -- the conditions to switch are, Number One, changes in network conditions. And then it gives some examples of things that might -- might make the system want to move to a -- another channel.

Q. Okay. My only point was, within the first example, Number One, that's just talking about change in network conditions. And there's a variety of examples?

A. And it says, "Failure of the first network or the first network slowing down." So that -- that -- that's a network condition change.

Q. Okay.

A. And it's talking about network, so Bluetooth versus WLAN, versus whatever.

Testimony of Dr. Myler (Ex. 2003) at 130:15-131:25; POR-00303 at 19-24; 50-51

'992 Patent | Claims 1 and 6 – Barnes and Shaw Do Not Teach the Determining Limitation

Barnes – Condition 5 – Addresses Network Connection and not Quality of Media Content

Barnes

able), 5) changes in conditions of the second network (e.g., more bandwidth or less noise), 6) the available capacity or

Barnes (Ex. 1004) at ¶ 0074; POR-00303 at 18-24

Dr. Myler confirmed that this network switching condition addresses the situation where a second network may improve network conditions (e.g., increased bandwidth or decreased noise), which may provide device 101 with a reason to switch networks

Petitioner's Expert: Dr. Myler

Q. And then how about Number 5, Condition 5?

A. Let's see. Changes in conditions of the second network, more bandwidth or less noise. So yeah, the second network makes a change, and all of a sudden, it has more bandwidth or less noise, which is basically another network, then that might be a reason for switch.

Q. Okay. So you might have selected the first network initially. The second network had -- didn't have a lot of bandwidth. But then, for some reason, the second network freed up and has more bandwidth now, and that might be a reason to switch?

A. Yeah, it could be interpreted as a reason not to switch. So when you're getting ready to switch and then all of a sudden the network is better.

Q. Okay.

A. I -- I think what's significant is changes in conditions of the second network.

Testimony of Dr. Myler (Ex. 2003) at 133:21-134:14; POR-00303 at 19-24; 50-51

'992 Patent | Claims 1 and 6 – Barnes and Shaw Do Not Teach the Determining Limitation

Shaw and Barnes fail to disclose the Determining Limitation for the same reasons as the Examiner allowed the Challenged Claims over the Jagadeesan and Kayama references

Karaoguz (Ex. 1002) at 21, 43, 50

File History

38. (Currently Amended) In a portable system, a method for providing a digital media service to a user, the method comprising:

~~providing a~~ delivering digital media content having a current quality level ~~service~~ to a user ~~at a current quality level~~;

determining that a network connection with a second system is available and is characterized by a communication bandwidth that is high enough to provide the digital media ~~service~~ content to the user at a quality level higher than the current quality level; ~~and~~

File History (Ex. 1002) at 43; POR-00303 at 51-52

voice data) remains the same. Indeed, Jagadeesan specifically states "[a] **handoff of the existing call** may occur" if the link quality of a second communication link is greater than the link quality of the communication link currently used by the mobile station. (Jagadeesan, paragraph **[0035]**, Emphasis added). That is, in Jagadeesan, prior to transmission by either the WLAN or the cellular network, the voice data is the same. And as a whole, Jagadeesan fails to disclose or

File History (Ex. 1002) at 50; POR-00303 at 51-52

communicate through. (Kayama, Abstract.) Kayama, like Jagadeesan, relates to selection of a communication medium, and fails to disclose, teach, or suggest obtaining digital media content at a higher quality level from the second system, as recited in claim 38. As such, Assignee

File History (Ex. 1002) at 50; POR-00303 at 51-52

’992 Patent | Claims 1 and 6 – Barnes and Shaw Do Not Teach the Using Limitation

Shaw and Barnes do not disclose obtaining "the digital media content at the higher quality level from the second system" for the same reasons as set forth in the Determining Limitation

Patent Owner’s Response

Using Limitation [1d]	**using** the network connection to obtain the digital media content at the higher quality level from the second system; and

POR-00303 at 11; POR-00303 at 52

’992 Patent | Claims 1 and 6 – Barnes and Shaw Do Not Teach the Second Delivering Limitation

Shaw and Barnes do not disclose obtaining "the digital media content at the higher quality level to the user" for the same reasons as set forth in the Determining Limitation

Patent Owner’s Response

Second Delivering Limitation [1d]	**delivering** the digital media content at the higher quality level to the user instead of the digital media content at the current quality level.

POR-00303 at 11; POR-00303 at 52-53

’992 Patent | Claims 1 and 6 – Barnes and Shaw Do Not Teach the Second Delivering Limitation

Petitioner attempts to combine the Using Limitation and Second Delivery Limitation into the same claim element

’992 Patent

using the network connection to obtain the digital media content at the higher quality level from the second system; and
delivering the digital media content at the higher quality level to the user instead of the digital media content at the current quality level.

’992 Patent (Ex. 1001) at 26:38-43; POR-00303 at 52-56

Petition

Using Limitations	
[1d]	**using the network connection to obtain the digital media content at the higher quality level from the second system; and delivering the digital media content at the higher quality level to the user instead of the digital media content at the current quality level.**
[6d]	use the network connection to obtain the digital media content at the higher quality level from the second system; and deliver the digital media content at the higher quality level to the user instead of the digital media content at the current quality level.

Pet. at 39; POR-00303 at 52-56

'992 Patent | Claims 1 and 6 – Barnes and Shaw Do Not Teach the Second Delivering Limitation

Petitioner's Expert acknowledged the Second Delivery Limitation requires providing content in a form that the user can use

Petitioner's Expert: Dr. Myler

Q. Okay. And what does it mean when it says: "You're delivering digital media content to a user?"

A. Well, delivering -- I think I talked about that in my report. Delivering business – delivering means that you are providing that content in a form that the user can use.

Testimony of Dr. Myler (Ex. 2003) at 225:19-24; POR-00303 at 52-53; POSR at 19-20

'992 Patent | Claims 1 and 6 – Barnes and Shaw Do Not Teach the Second Delivering Limitation

Petitioner's Expert explained the different between the Using and Second Delivery Limitations

Petitioner's Expert: Dr. Myler

Q. Okay. So, for example, if I have a device, let's say a PDA, that only has -- I think you gave this example earlier -- only has the capability of showing a movie in SD format. Even though I could obtain an HD version of the movie through the network and from the second system, there would be no way to deliver that to the user because the user is looking at a screen that doesn't support that format, the HD format; is that correct?

A. That's correct. Whether it -- the second system has processing capability, which, if utilized, would result in the current service being provided to the user at a higher level of quality than the current quality level, yeah.

Q. Yeah. So even though I could obtain the higher quality content, I couldn't deliver it to the user because a user is using a device that doesn't have the correct processing capability; is that correct?

A. I think I called that the utilizing elements, you know, can you -- can you utilize it or not. Yeah, you may find it. You may have it in your hand. It's sort of like a little lockbox full of rare gems. Well, you're not going to have those rare gems unless you have the key, you know, that kind of thing.

Q. Right.

A. Even though getting at the gems would increase your quality of life, let's say.

Testimony of Dr. Myler (Ex. 2003) at 181:24-183:2; POR-00303 at 53-54

’992 Patent | Claims 1 and 6 – Barnes and Shaw Do Not Teach the Second Delivering Limitation

The ’992 Patent describes how the two systems share information, including the various processing capabilities (e.g. decoding capabilities) of the two systems

Patent Owner’s Response

5:3-17 (explaining that the "Step 150 may comprise communicating information between the first and second systems of whether the first or second system has **processing capability**, which if utilized, **would result in the current service being provided to the user at a higher level of quality than the current quality level**. For example and without limitation, the first and second systems may communicate information of **data decoding and processing capability**. Such processing capability may be, for example, related to available hardware or software resources.") (emphasis added); *accord* Ex. 2002, ¶ 104.

POR-00303 at 55

’992 Patent | Claims 1 and 6 – Barnes and Shaw Do Not Teach the Second Delivering Limitation

Patent Owner’s Response

Therefore, because the systems taught by Barnes and Shaw do not teach anything related to obtaining digital media content at a higher quality level from another source, these references do not teach determining whether the portable system can **deliver** the digital media content at a higher quality level to the user. Because of this clear shortcoming of Barnes and Shaw, the Petitioner attempts to conflate the Second Delivering Limitation with the Using Limitation – something the Board should disregard by upholding the validity of the Challenged Claims. *See Aristocrat Techs. Australia Pty Ltd. v. Int'l Game Tech.*, 709 F.3d 1348, 1356-57 (Fed. Cir. 2013) (rejecting Aristocrat's argument that combined two claim limitations as it would render one claim limitation "superfluous"); *United Servs. Automobile Ass'n v. Asghari-Kamrani*, No. CBM2016-00063, Paper 14 at 17 (PTAB Sept. 21, 2016) (same); *see also Cat Tech LLC v. TubeMaster, Inc.*, 528 F.3d 871, 885 (Fed. Cir. 2008) (interpretation cannot render claim limitations "functionally meaningless"); *Samsung Elecs. Co., Ltd. et al. v. Elm 3DS Innovations, LLC*, No. IPR2016-00386, Paper 68 at 26 (PTAB June 23, 2017) (same).

POR-00303 at 55-56

'992 Patent | Barnes and Shaw Do Not Invalidate Claims 11 and 16

Patent Owner's Response

Determining Limitation [11d]	**determining**, based at least in part on said communicating, that the network connection is available and characterized by at least a minimum determined communication bandwidth;
Utilizing Limitation [11e]	in response to at least said determining, **utilizing** the network connection to receive the digital media content at a quality level higher than the current quality level; and

POR-00303 at 13; 56-57

Shaw and Barnes both teach switching servers to obtain a better network connection, but neither reference teaches anything about "utilizing the network connection to receive the digital media content at a quality level higher than the current quality level" as required by the Utilizing Limitation

’992 Patent | Barnes and Shaw Do Not Invalidate Claims 11 and 16

Patent Owner’s Response

Second Delivering Limitation [11e]	**delivering** the digital media content at the higher quality level to the user instead of the digital media content at the current quality level.

POR-00303 at 13; 56-57

Neither Barnes nor Shaw disclose the Second Delivery Limitation of Claims 11 and 16 (i.e., limitations [11e] and [16e]), respectively, for the same reasons that these references do not teach the Second Delivery Limitation in Claims 1 and 6

'992 Patent | Barnes and Shaw Do Not Invalidate Dependent Claims 2-5, 7-10, 12-13, and 17-18

Patent Owner's Response

> Challenged Claims 2-5, 7-10, 12-13, and 17-18 depend from Claims 1, 6, 11, or 16. Thus, these dependent claims are valid over the Barnes and Shaw references for at least the reasons discussed above with regard to independent Claims 1, 6, 11, and 16. *See* Ex. 2002, ¶ 110.

POR-00303 at 57

’992 Patent | Petitioner Did Not Challenge Dependent Claims 14 and 19

Other than listing Claims 14 and 19 within the group of Challenged Claims, Petitioner never even mentions Claims 14 and 19 elsewhere in the Petition, let alone discussing the limitations of those claims or arguing why the cited references might disclose those limitations.

Institution Decision

being unpatentable in view of Barnes and Shaw, but we determine Petitioner has not satisfied its burden with respect to claims 14 and 19. Contrary to

Institution Decision (Paper 7) at 16; POR-00303 at 57-58

'992 Patent | Barnes and Shaw Cannot Be Combined to Invalidate the Challenged Claims

Petitioner's expert claimed that a POSITA would seek to use the teachings of Shaw related to the media player to allow the mobile device in Barnes:

Petitioner's Expert: Dr. Myler

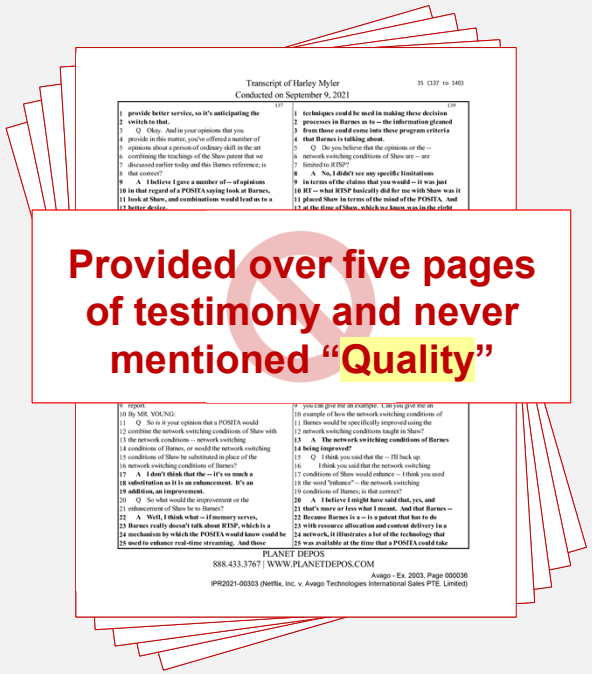
Q. So is it your opinion that a POSITA would, when they're looking to combine Barnes and Shaw, they would take the Barnes mobile device and put the media client player from Shaw onto that device; is that your opinion?

A. Certainly the aspects of that media player. I think the -- what they would be mainly looking at is the aspects of that media player that allow it to seek out and find better sources from multiple sources. And, of course, it wouldn't be just restricted to a media player, although that's the primary example in Shaw.

Testimony of Dr. Myler (Ex. 2003) at 117:16-118:2; POR-00303 at 58-63; POSR at 21

’992 Patent | Barnes and Shaw Cannot Be Combined to Invalidate the Challenged Claims

However, when asked to elaborate on why a POSITA would combine the teachings of Barnes and Shaw, Dr. Myler:



Provided over five pages of testimony and never mentioned “Quality”

Testimony of Dr. Myler (Ex. 2003) at 137:3-142:6; POR-00303 at 58-63; POSR at 21

The Applicant specifically amended the Challenged Claims to emphasize the importance of obtaining digital media content at a higher quality level from the second system.

File History

38. (Currently Amended) In a portable system, a method for providing a digital media service to a user, the method comprising:

~~providing a~~ delivering digital media content having a current quality level ~~service~~ to a user ~~at a current quality level~~;

determining that a network connection with a second system is available and is characterized by a communication bandwidth that is high enough to provide the digital media ~~service~~ content to the user at a quality level higher than the current quality level; ~~and~~

~~in response to at least said determining, utilizing the network connection to provide the digital media service to the user at a quality level higher than the current quality level.~~

using the network connection to obtain the digital media content at the higher quality level from the second system; and

delivering the digital media content at the higher quality level to the user instead of the digital media content at the current quality level.

File History (Ex. 1002) at 43; POR-00303 at 58-63

United States Patent and Trademark Office

Patent Trial and Appeal Board

NETFLIX, INC.,

(Petitioner)

v.

AVAGO TECHNOLOGIES INTERNATIONAL SALES

(Patent Owner)

IPR2021-00303 | U.S. Patent No. 8,270,992

Patent Owner's Demonstrative Exhibits

ADSERO IP