

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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**AKAMAI TECHNOLOGIES, INC.,**

Petitioner,

**v.**

**EQUIL IP HOLDINGS LLC,**

Patent Owner.

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Case IPR2023-00330

U.S. Patent No. 8,495,242

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**PETITION FOR *INTER PARTES* REVIEW**

## TABLE OF CONTENTS

|                                                                       |    |
|-----------------------------------------------------------------------|----|
| EXHIBIT LIST .....                                                    | iv |
| CHALLENGED CLAIM.....                                                 | vi |
| I. INTRODUCTION .....                                                 | 1  |
| II. MANDATORY NOTICES .....                                           | 3  |
| A. Real Parties-in-Interest .....                                     | 3  |
| B. Related Matters.....                                               | 3  |
| C. Counsel and Service Information:.....                              | 4  |
| III. PAYMENT OF FEES .....                                            | 5  |
| IV. REQUIREMENTS FOR <i>INTER PARTES</i> REVIEW.....                  | 5  |
| A. Grounds for Standing .....                                         | 5  |
| B. Identification of Challenge.....                                   | 5  |
| 1. Specific Art on Which the Challenge is Based.....                  | 5  |
| 2. Statutory Grounds on Which the Challenge is Based.....             | 6  |
| V. '242 PATENT AND PROSECUTION HISTORY .....                          | 6  |
| A. '242 Patent.....                                                   | 6  |
| B. Prosecution History of the '242 .....                              | 7  |
| VI. §325(d) AND §314(a) DISCRETION DO NOT APPLY .....                 | 8  |
| A. §325(d) .....                                                      | 8  |
| B. §314(a).....                                                       | 9  |
| VII. LEVEL OF ORDINARY SKILL .....                                    | 10 |
| VIII. CLAIM CONSTRUCTION .....                                        | 10 |
| IX. GROUNDS OF UNPATENTABILITY.....                                   | 11 |
| A. Ground 1: Tso in view of Huang.....                                | 11 |
| 1. Tso.....                                                           | 11 |
| 2. Huang and Motivation to Modify Tso with Huang's<br>Teachings ..... | 15 |
| 3. Claim Chart .....                                                  | 21 |
| B. Grounds 2/3: Samaniego .....                                       | 41 |

|     |                                             |    |
|-----|---------------------------------------------|----|
| 1.  | Samaniego.....                              | 41 |
| 2.  | PO Intentionally Changed Inventorship ..... | 43 |
| 3.  | Claim Chart.....                            | 44 |
| C.  | Ground 4: Samaniego in View of Tso.....     | 53 |
| X.  | SECONDARY CONSIDERATIONS .....              | 56 |
| XI. | CONCLUSION.....                             | 56 |

**TABLE OF ABBREVIATIONS**

|            |                                                 |
|------------|-------------------------------------------------|
| '009       | U.S. Patent No. 6,964,009                       |
| '009 FH    | File History of U.S. Application No. 09/929,904 |
| '046 FH    | File History of U.S. Application No. 12/173,747 |
| '110 FH    | File History of U.S. Application No. 12/238,842 |
| '242       | U.S. Patent No. 8,495,242                       |
| '242 FH    | File History of U.S. Application No. 12/713,637 |
| '575       | U.S. Patent No. 6,792,575                       |
| '575       | U.S. Patent No. 6,792,575                       |
| '575 FH    | File History of U.S. Application No. 09/425,326 |
| '745       | U.S. Patent No. 9,158,745                       |
| '916       | U.S. Patent Application No. 11/269,916          |
| '916 FH    | File History of U.S. Application No. 11/269,916 |
| Claim      | Claim 9 of U.S. Patent No. 8,495,242            |
| Davis      | U.S. Patent No. 5,969,716                       |
| Delp       | U.S. Patent No. 5,420,967                       |
| Huang      | U.S. Patent No. 6,438,576                       |
| IPR        | <i>Inter Partes</i> Review                      |
| Petitioner | Petitioner Akamai Technologies, Inc.            |
| PO         | Patent Owner Equil IP Holdings LLC              |
| POSITA     | Person of Ordinary Skill in the Art             |
| PTAB       | Patent Trial and Appeal Board                   |
| RHI        | Receiver Hint Information                       |
| Samaniego  | U.S. Patent Application No. US 2002/0078093     |
| Tso        | U.S. Patent No. 6,421,733                       |
| USPTO      | United States Patent and Trademark Office       |

**EXHIBIT LIST**

|          |                                                                                                                                                                                                                                                                                                                                                                                                      |
|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ex. 1001 | U.S. Patent No. 8,495,242 (“’242”)                                                                                                                                                                                                                                                                                                                                                                   |
| Ex. 1002 | File History of U.S. Application No. 12/713,637 (“’242 FH”)                                                                                                                                                                                                                                                                                                                                          |
| Ex. 1003 | Declaration of Vijay K. Madiseti in Support of Petition for <i>Inter Partes</i> Review of U.S. Patent No. 8,495,242                                                                                                                                                                                                                                                                                  |
| Ex. 1004 | U.S. Patent No. 6,421,733 (“Tso”)                                                                                                                                                                                                                                                                                                                                                                    |
| Ex. 1005 | U.S. Patent No. 6,438,576 (“Huang”)                                                                                                                                                                                                                                                                                                                                                                  |
| Ex. 1006 | (Reserved)                                                                                                                                                                                                                                                                                                                                                                                           |
| Ex. 1007 | U.S. Patent Application Publication No. US 2002/0078093 (“Samaniego”)                                                                                                                                                                                                                                                                                                                                |
| Ex. 1008 | U.S. Patent No. 5,420,967 (“Delp”)                                                                                                                                                                                                                                                                                                                                                                   |
| Ex. 1009 | U.S. Patent No. 5,969,716 (“Davis”)                                                                                                                                                                                                                                                                                                                                                                  |
| Ex. 1010 | File History of U.S. Application No. 11/269,916 (“’916 FH”)                                                                                                                                                                                                                                                                                                                                          |
| Ex. 1011 | U.S. Patent No. 6,964,009 (“’009”)                                                                                                                                                                                                                                                                                                                                                                   |
| Ex. 1012 | U.S. Patent No. 6,792,575 (“’575”)                                                                                                                                                                                                                                                                                                                                                                   |
| Ex. 1013 | Redline Comparison of specifications from Samaniego and the ’242 patent                                                                                                                                                                                                                                                                                                                              |
| Ex. 1014 | Loralee Stevens, Internet Video Startup Gets \$3.5 Million, N. Bay Bus. J. (Apr. 14, 2008),<br><a href="https://web.archive.org/web/20080421191837/www.northbaybusinessjournal.com/article/20080414/BUSINESSJOURNAL/19773530/1207/BUSINESSJOURNAL02">https://web.archive.org/web/20080421191837/www.northbaybusinessjournal.com/article/20080414/BUSINESSJOURNAL/19773530/1207/BUSINESSJOURNAL02</a> |
| Ex. 1015 | LinkedIn Profile for Chris Samaniego,<br><a href="https://www.linkedin.com/in/chris-samaniego-18b6a01">https://www.linkedin.com/in/chris-samaniego-18b6a01</a>                                                                                                                                                                                                                                       |
| Ex. 1016 | <i>Equil IP Holdings LLC v. Akamai Technologies, Inc.</i> , 1:22-cv-00677 (D. Del. 2022) First Amended complaint (Aug. 3, 2022)                                                                                                                                                                                                                                                                      |

U.S. Patent No. 8,495,242  
Petition for *Inter Partes* Review - IPR2023-00330

|          |                                                                                                                    |
|----------|--------------------------------------------------------------------------------------------------------------------|
| Ex. 1017 | (Reserved)                                                                                                         |
| Ex. 1018 | (Reserved)                                                                                                         |
| Ex. 1019 | (Reserved)                                                                                                         |
| Ex. 1020 | Docket Report for Barger-Great South Ventures LLC v. Equilibrium Techs.                                            |
| Ex. 1021 | Redline Comparison of specifications from Samaniego and Publication No. 2006-0265476 of Application No. 11/269,916 |
| Ex. 1022 | (Reserved)                                                                                                         |
| Ex. 1023 | (Reserved)                                                                                                         |
| Ex. 1024 | (Reserved)                                                                                                         |
| Ex. 1025 | (Reserved)                                                                                                         |
| Ex. 1026 | File History of U.S. Application No. 12/173,747 (“’046 FH”)                                                        |
| Ex. 1027 | File History of U.S. Application No. 12/238,842 (“’110 FH”)                                                        |
| Ex. 1028 | Redline Comparison of specifications from Samaniego and Publication No. 2009-0070485 of Application No. 12/173,747 |
| Ex. 1029 | Redline Comparison of specifications from Samaniego and Publication No. 2009-0089422 of Application No. 12/238,842 |
| Ex. 1030 | (Reserved)                                                                                                         |
| Ex. 1031 | (Reserved)                                                                                                         |
| Ex. 1032 | (Reserved)                                                                                                         |
| Ex. 1033 | (Reserved)                                                                                                         |
| Ex. 1034 | File History of U.S. Application No. 09/425,326 (“’575 FH”)                                                        |
| Ex. 1035 | File History of U.S. Application No. 09/929,904 (“’009 FH”)                                                        |
| Ex. 1036 | Declaration of Jonathan Bradford                                                                                   |

**CHALLENGED CLAIM**

[9.pre] A method for accessing dynamically transcoding media content, the method comprising:

[9.a] an act of receiving a request for media content to be delivered to a client presentation system, wherein the requested media content has a limited number of base transcoding profiles associated therewith, each base transcoding profile corresponding to a cached version of the requested media content;

[9.b] at the time of the request, and without input by a network administrator, an act of automatically identifying transcoding parameters to be applied to the requested media content prior to delivery to the client presentation system, wherein identification of transcoding parameters is based on one or more formats of any client presentation system;

[9.c] an act of determining that the transcoding parameters to be applied to the requested media content prior to delivery to the client presentation system are the same as transcoding parameters that are being applied to the requested media content prior to delivery to another client presentation system;

[9.d] an act of transcoding the requested media content in accordance with the identified transcoding parameters, such that the identified transcoding

parameters are used to perform additional incremental transcoding on top of the base transcoding profile;

[9.e] wherein the act of transcoding the requested media content in accordance with the identified transcoding parameters comprises:

an act of selecting a pre-existing base transcoded version of the requested media content comprising intermediate derivative media that has been transcoded in accordance with only a portion of the identified transcoding parameters; and

[9.f] an act of creating a final version by incrementally performing further transcoding of the pre-existing base transcoded version in accordance with a remaining portion of the identified transcoding parameters;

[9.g] an act of delivering the transcoded media content to both client presentation systems concurrently.

Pursuant to §§311-319 and §42.1,<sup>1</sup> Akamai Technologies, Inc. (“Petitioner”) petitions for *inter partes* review (“IPR”) of claim 9 (“Claim”) of U.S. Patent No. 8,495,242 (Ex. 1001, “’242”), assigned to Equil IP Holdings LLC (“PO”). Petitioner requests review of the challenged Claim, and judgment finding it unpatentable under §§102 and 103.

## **I. INTRODUCTION**

The purported invention of the ’242 is a method of automatically transcoding media content. The method uses information about a client’s system (*e.g.*, browser attributes) to select and further process a cached version of content and returns that processed version to the client. *See* ’242, 20:7-9, 23:45-24:16; Madisetti, ¶35.

Specifically, the challenged Claim recites that a system receives a request for content for which there are cached versions associated with different base “transcoding profiles.” When the request is received, the system automatically identifies transcoding parameters to be applied to the content before transmission, based on one or more formats of the client presentation system. Using these

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<sup>1</sup> Section cites are to 35 U.S.C. (pre-AIA) or 37 C.F.R. as context indicates. All emphasis/annotations added unless noted. Annotations added to the figures herein generally quote the challenged Claim’s language for reference. All citations herein are exemplary and not meant to be limiting.

parameters, the system takes a base transcoding profile and performs additional incremental transcoding on top of the base profile in order to complete transcoding, and then returns the content to the client and caches the content. Madisetti, ¶36.

When allowing the challenged Claim, the examiner stated that the prior art does not disclose the steps recited in [9.e]-[9.f], which require “selecting a pre-existing base transcoded version” of the content that has been transcoded “with only a portion of the identified transcoding parameters,” and “creating a final version by incrementally performing further transcoding” of that “base transcoded version in accordance with a remaining portion of the identified transcoding parameters.” Ex. 1002, 824-25; Madisetti, ¶37.

But these features were known in the art. For example, **Tso** (Ex. 1004) discloses using a “GetScaledObject()” call to retrieve a “particular version of that object” that was previously cached. Tso, 6:9-13. **Huang** (Ex. 1005) further discloses performing additional transcoding on top of a partially-rendered intermediate item retrieved from cache to generate a completely rendered version of the content. Huang, 7:23-8:11; Madisetti, ¶¶38-39.

Separately, as an independent ground, in an earlier patent that qualifies as prior art, PO explained the very same transcoding system. In particular, the ’242 purports to claim priority to Application No. 09/929,904, which published as Samaniego (Ex. 1007) on 6/20/2002. Samaniego’s specification is substantively

identical to the '242 specification. Madisetti, ¶40. But, Samaniego has no common inventors with the '242, and is therefore §102(b) art to Claim 9. The '242's earliest possible priority date is no earlier than 11/7/2005—the filing date of the earliest identified priority application sharing at least one named inventor with the '242 (*see* Ex. 1010, Application No. 11/269,916). PO presented its priority claim and decided not to name Samaniego's inventors as inventors of the '242—despite the requirement of overlapping inventors for a valid priority claim.

As demonstrated herein, the prior art renders Claim 9 unpatentable, which recites nothing more than known processing steps combined to yield predictable results. Madisetti, ¶41.

Petitioner requests that the Board institute trial and find Claim 9 unpatentable.

## **II. MANDATORY NOTICES**

### **A. Real Parties-in-Interest**

Petitioner Akamai Technologies, Inc. is the real party-in-interest. No other party had access to or control over the present Petition, and no other party funded or participated in preparation of the present Petition.

### **B. Related Matters**

Petitioner is concurrently filing IPR petitions challenging claims of related U.S. Patent Nos. 9,158,745 (“’745”) (IPR2023-00332) and 6,792,575 (“’575”) (IPR2023-00329). There are no other IPRs pending for the '242 or patents related to the '242 beyond those being concurrently filed.

The '242 is the subject of the following co-pending civil action: *Equil IP Holdings LLC v. Akamai Technologies, Inc.*, No. 1-22-cv-00677 (D. Del.).

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Petitioner consents to electronic service of documents to the email addresses of the counsel identified above.

### **III. PAYMENT OF FEES**

The USPTO is authorized to charge any fees due during this proceeding to Deposit Account No. 18-1945, under Order No. AKTI-011-652.

### **IV. REQUIREMENTS FOR *INTER PARTES* REVIEW**

#### **A. Grounds for Standing**

Pursuant to §42.104(a), Petitioner certifies that the '242 is available for IPR. Petitioner and the real parties-in-interest are not barred or estopped from requesting IPR challenging the claim on the grounds identified herein.

#### **B. Identification of Challenge**

Pursuant to §§42.104(b)-(b)(1), Petitioner requests IPR of claim 9, and that the Board cancel the same as unpatentable.

##### **1. Specific Art on Which the Challenge is Based**

Petitioner relies on the following prior art:

| <b>Name</b> | <b>US Patent/<br/>Publication</b> | <b>Exhibit</b> | <b>Filed</b> | <b>Published/<br/>Issued</b> | <b>Prior art<br/>under at<br/>least</b> |
|-------------|-----------------------------------|----------------|--------------|------------------------------|-----------------------------------------|
| Tso         | 6,421,733                         | 1004           | 9/8/1997     | 7/16/2002                    | §§102(b)/(e)                            |
| Huang       | 6,438,576                         | 1005           | 3/29/1999    | 8/20/2002                    |                                         |
| Samaniego   | 2002/0078093                      | 1007           | 8/14/2001    | 6/20/2002                    | §102(b)                                 |

The '242's priority date is no earlier than 11/7/2005, the filing date of Application No. 11/269,916. The '242 cannot claim priority to the earlier-filed purported priority applications (09/425,326 and 09/929,904) because "both §120 and 37 C.F.R. §1.78(c)(1) require the involved application and the earliest application in the priority chain to share at least one common inventor." *Polaris Wireless, Inc. v. TruePosition Inc.*, IPR2013-00323, Pap. 62, \*25, *aff'd* 622 F. App'x 915 (Fed. Cir. 2015); *see also* Exs. 1002, 1034-1035.

**2. Statutory Grounds on Which the Challenge is Based**

| Ground          | Claim | References               |
|-----------------|-------|--------------------------|
| 1 (§103)        | 9     | Tso in view of Huang     |
| 2/3 (§§102/103) |       | Samaniego                |
| 4 (§103)        |       | Samaniego in view of Tso |

**V. '242 PATENT AND PROSECUTION HISTORY**

**A. '242 Patent**

Challenged '242 Claim 9 generally recites a method for processing media by using partially-processed content stored in a cache, and further processing that content to generate a final version of media content to be served in response to a user request. '242, 1:19-23, 17:35-39, 22:24-28. In the method, a client presentation system first issues a request for media content. '242, 23:45-48; *see also* '242, 19:12-15. The requested content item has limited number of associated "base transcoding

profiles” that each correspond to a cached version of content. ’242, 23:49-52; *see also* ’242, 17:27-34, 19:63-67. The system uses a “user profile procedure” to identify “transcoding parameters” to be applied to the content based on “specified browser or client attributes,” and determines whether the same transcoding parameters are being applied prior to delivery to another “client presentation system.” ’242, 23:53-65; *see also* ’242, 19:15-22, 19:48-52, 20:7-9, Figs. 21-22. To transcode the data, the system takes a pre-existing cached version of the requested content transcoded according to only some of the “transcoding parameters,” and then applies the remaining “transcoding parameters” to that version. ’242, 23:65-24:14; *see also* ’242, 19:64-20:1. This transcoded version is then delivered to both the originally-requesting client presentation system, as well as the other “client presentation system” requesting the same content. ’242, 24:15-16; *see also* ’242, 20:9-11; Madisetti, ¶42.

#### **B. Prosecution History of the ’242**

During prosecution, the draft claim that issued as Claim 9 was thrice rejected as obvious in view of prior art in response to which the Applicant amended the Claim. Ex. 1002 (’242 FH), 81-109, 124-53, 744-91. After the last rejection during prosecution, the Applicant amended the Claim to recite that the “act of transcoding the requested media content in accordance with the identified transcoding parameters” comprises (1) “selecting a pre-existing base transcoded version of the

requested media content comprising intermediate derivative media that has been transcoded in accordance with only a portion of the identified transcoding parameters” and (2) “creating a final version by incrementally performing further transcoding of the pre-existing base transcoded version in accordance with a remaining portion of the identified transcoding parameters.” Ex. 1002, 792-814. The Examiner then allowed Claim 9 and stated in the reasons for allowance that these two elements were not disclosed in the cited art. Ex. 1002, 820-26; *see also* Madisetti, ¶43.

## **VI. §325(d) AND §314(a) DISCRETION DO NOT APPLY**

### **A. §325(d)**

Under *Advanced Bionics v. Med-El Elektromedizinische Gerate*, IPR2019-01469, Pap. 6, \*8-9, the Board should not exercise §325(d) discretion.

**This Petition’s grounds are not the same or substantially the same as the prosecution art or arguments.** None of the cited references was considered as art during prosecution. The Examiner appears to have overlooked that Samaniego is prior art to the ’242 due to differences in inventorship. *See* Ex. 1007. As explained below, **Samaniego** discloses Claim 9, and the cited art also independently renders obvious Claim 9. *See* §IX. The ’242 specification also identifies several additional references (*e.g.*, ’242, 2:18-45, 3:50-4:15), but these were not included in an information disclosure statement (37 C.F.R. §1.98(a)(1)). Regardless, the

disclosures identified to the USPTO from those references do not include disclosures of, *e.g.*, incremental transcoding that are substantially the same as the cited art in this Petition (see §IX).

**Even if the art or arguments were substantially the same, the Examiner erred in a manner material to the patentability of the Claim.** The Examiner “did not expressly consider” any of the cited references as prior art, rendering it difficult, if not impossible, to explain “how the Examiner might have considered the arguments presented in the Petition.” *Bowtech, Inc. v. MCP IP, LLC*, IPR2019-00379, Pap. 14, \*20 (declining to exercise §325(d) discretion). Even if any of the art considered by the USPTO was substantially similar to these references (none is), the Examiner would have erred in not rejecting the Claims. It was also error not to consider Samaniego as prior art during prosecution in light of the difference in inventorship.

The Board should not exercise §325(d) discretion.

**B. §314(a)**

The co-pending litigation also does not warrant the exercise of discretion under §314(a) based on the *Fintiv* factors.

1: Following institution, Petitioner intends to seek a stay of the Delaware case pending the outcome of this IPR and concurrently-filed IPR2023-00332 and IPR2023-00329.

2: No trial date is set.

3: The case is in the pleading stage and the court has not ruled on the initial motion to dismiss.

4: After the final written decision, which is expected before trial even without a stay, the same grounds, arguments, and evidence could not be presented in the litigation.

5: The litigation and PTAB parties are the same.

6: The merits of this Petition are compelling as shown herein.

## **VII. LEVEL OF ORDINARY SKILL**

A person of ordinary skill in the art (“POSITA”) as of the ’242’s claimed priority date would have had a bachelor’s degree in computer systems, computer science, or the equivalent thereof, and at least two years of experience with networked media delivery or related technologies. Madisetti, ¶¶44-45, 47-48. More education can supplement practical experience, and vice-versa. *Id.*

To the extent PO contends the ’242 is entitled to a priority date earlier than November 7, 2005 (it is not—see §IV.B.1), the Claims are still unpatentable. Madisetti, ¶¶46, 49-50.

## **VIII. CLAIM CONSTRUCTION**

Claim terms subject to IPR are construed using *Phillips*. §42.100(b); *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313 (Fed. Cir. 2005). Only terms necessary to

resolve the controversy need construction. *Nidec Motor Corp. v. Zhongshan Broad Ocean Motor*, 868 F.3d 1013, 1017 (Fed. Cir. 2017). Because the prior art asserted herein discloses embodiments within the Claim's indisputable scope, the Board need not construe the Claim's outer bounds. All claim terms should be construed according to their plain and ordinary meaning. Madisetti, ¶¶51-52.

Regardless of whether the preamble is limiting, the prior art discloses it. *See* §IX; Madisetti, ¶53.

## **IX. GROUNDS OF UNPATENTABILITY**

This petition is supported by the Declaration of Dr. Vijay Madisetti, which describes the prior art's scope and content at the time of the '242. Madisetti, ¶¶1-34. The art renders Claim 9 unpatentable under each of the Grounds. Madisetti, ¶¶54-58.

### **A. Ground 1: Tso in view of Huang**

#### **1. Tso**

Tso discloses a “system for dynamically transcoding data transmitted between two computers over a communications link.” Tso, 1:13-14; Madisetti, ¶59. Fig. 3 annotated below shows an embodiment of this system:

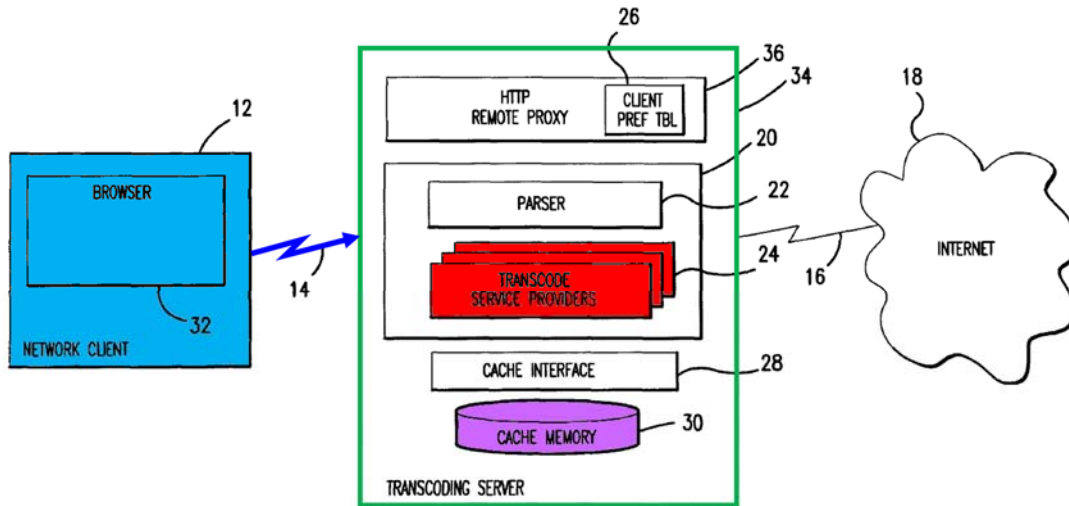


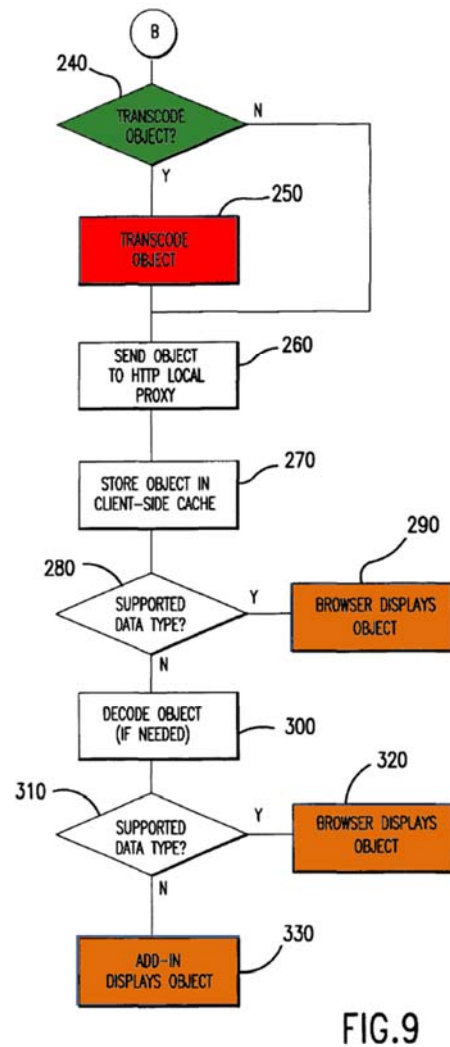
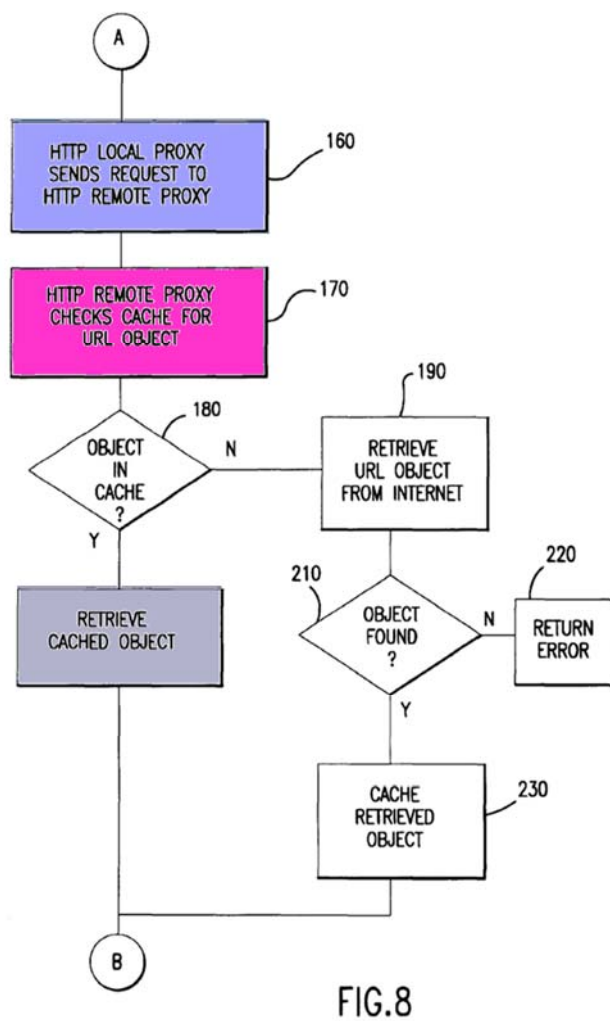
FIG.3

Tso, Fig. 3. A **network client** sends to a **transcoding server** a **request for content**, such as a web page including “image, video, or HTML” content. Tso, 3:10-14, 3:45-53, 4:6-10, 9:54-65, 14:1-7; Madisetti, ¶60.

The request from the client carries “selection criteri[a]” used to specify how content should be transcoded. Tso, 6:64-8:9. Such selection criteria include the “particular content” being requested (Tso, 7:4-7), as well as “network client” information “such as a display dimension, resolution, number of colors, processor type, memory/disk configuration, modem or network interface type” (Tso, 7:20-33)—which are formats of a client presentation system as claimed in the ’242. Madisetti, ¶60. The system uses these criteria and “combinations thereof” to select which of the “**transcode service providers 24** are invoked” to generate the version of content to be provided in response to the client’s request. Tso, 3:48-65, 7:15-17, 8:10-14; Madisetti, ¶60.

In addition to the “**transcode service providers**,” the transcoding server includes a “**parser**” and a “**cache interface**” connected to a “**cache memory**.” Tso, 3:8-17, 3:66-4:5, 4:14-19; Madisetti, ¶61.

Figures 8 and 9 annotated below summarizes the relevant portions of the process disclosed by Tso:



Upon **receiving the request from the client**, the system issues, via the parser invoked by the HTTP remote proxy, a “GetScaledObject()” request to the “**cache**

**memory” to determine whether a specific version of content exists in cache, such as a version with a “stage” property specifying the progress of “staged refinements”**—which not only renders obvious, but affirmatively discloses, retrieving a partially-transcoded version of content. Tso, 5:36-42, 6:9-23; Madisetti, ¶¶62-63. The cache memory carries “several different versions of an object to support clients with different communications and/or presentation capabilities.” *Id.* If the requested content version exists in cache, it is **retrieved from cache memory** and **returned to the client**. If the requested version does not exist in cache memory, the parser uses “predetermined selection criteri[a]” to **determine whether the retrieved content version requires additional transcoding**. The system performs any required additional transcoding using one or more **transcode service providers**, which each perform different transcoding operations, to produce content as requested by the client. Tso, 14:47-50, 7:15-8:9, 6:28-50, 14:50-55, 10:37-49, 4:23-37; Madisetti, ¶63. Additional transcode service providers may be “dynamically added to the system” to perform additional transcoding operations. *Id.*

Tso teaches that caching of “original” and “several different” content versions is integrated into the transcoding process. Tso, 4:1-5, 6:13-23; Madisetti, ¶64. Thus, in servicing future requests for the same object, the transcoding server issues `GetScaledObject()` requests to retrieve the requested content version from cache and

**returns requested content to the client's browser for display.** Tso, 6:42-50, 14:52-57; Madisetti, ¶64.

Tso also discloses using multiple-thread processing on servers to handle concurrent requests for content: the content is retrieved only once, and “appropriate versions” are delivered to multiple clients “concurrently.” Tso, 5:43-50, 6:51-63, 7:60-8:9; Madisetti, ¶65. Tso also discloses using these teachings to “collaboratively” transcode content using multiple servers and clients. Tso, 14:47-15:6, 16:10-14. During collaborative transcoding, servers partially transcode content before sending it to clients or other servers to complete transcoding; servers thus send, receive, and further transcode partially-transcoded content. *Id.*; Madisetti, ¶65.

**2. Huang and Motivation to Modify Tso with Huang's Teachings**

In the same field of endeavor, Huang teaches an “object rendering” method in which both “partially” and “completely” “rendered objects” are cached “to avoid repeating some object rendering operations with the same proxy server.” Huang, Abstract, 6:63-67. “Rendering” processes taught by Huang include, *e.g.*, transcoding processes that “render” content “into different forms or resolutions” or from color to

“black-and-white.” Huang, 1:17-22, 1:57-58, 6:59-63; Madisetti, ¶¶66.<sup>2</sup> An embodiment of this process is shown in annotated Fig. 4:

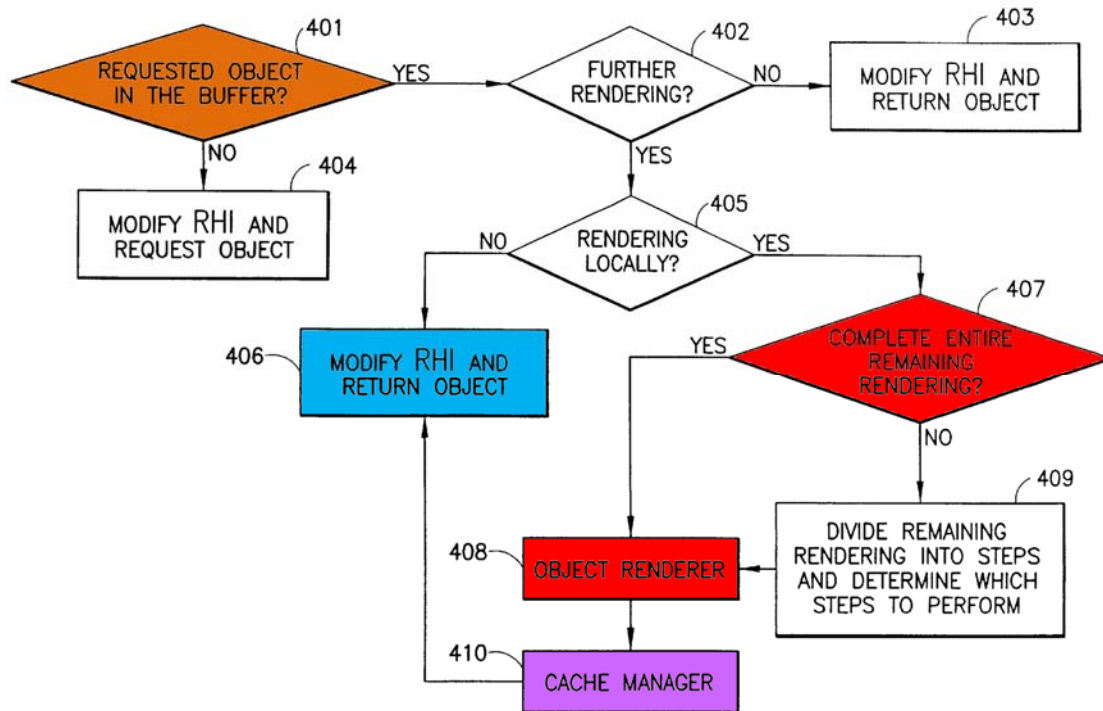


FIG.4

Huang, Fig. 4. At **step 401**, the proxy server searches the cache for a stored version of the requested content that is sufficiently “detailed” to handle the request. Huang, 7:23-36. If further rendering (*e.g.*, by transcoding) of the requested object is necessary, then at **steps 407-408** the proxy server completes the remaining rendering

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<sup>2</sup> As used herein, “rendering” refers to transcoding. These “resolution” and “bit depth” rendering operations describe similar operations to Tso’s “data type, type of encoding/compression,” “resolution,” and “number of colors” transcoding operations. See Tso, 7:15-8:9; Madisetti, ¶¶66.

steps locally. Huang, 7:53-8:4. The system then caches a copy of the requested object (step 410), and it returns the requested content to the user (step 406). Huang, 8:4-8:11; Madisetti, ¶¶67-68.

Content is stored along with Receiver Hint Information (“RHI”) and “object-specific descriptor” “meta-information.” Huang, 5:42-52. A server performs “complete or partial rendering based on the associated RHI” by “partition[ing]” the rendering process into “two or more steps” and modifying the RHI to “reflect the processing that [the server] performed.” Huang, 6:9-23, 6:56-68. When a new request for previously-cached content is received, the server uses a cached object’s RHI to determine if “further rendering is necessary” and whether to “complete the entire rendering process” locally. Huang, 7:43-64; Madisetti, ¶69.

Tso and Huang are analogous prior art and in the same field as the ’242—networked media delivery—and reasonably pertinent to the alleged problems identified in the ’242—automating media delivery and reducing overhead and time to generate Web pages. ’242, 1:20-23 (networked “software system that provides delivery of automated graphics and other media”), 4:50-56, 4:66-5:8, 6:4-8; Tso, 1:10-31 (networked “system for dynamically transcoding data transmitted between two computers”), 1:59-2:5, 4:1-5; Huang, 1:20-26 (networked “proxy servers perform distributed object rendering”), 2:1-10, 2:37-44; Madisetti, ¶70.

While **Tso** not only renders obvious, but affirmatively discloses retrieving partially-transcoded content from cache, *e.g.*, as part of staged transcoding (see §IX.A.1), **Huang** explicitly teaches retrieving from the cache and further processing partially transcoded content, and tracking the different versions of content available on the system using RHI information. *E.g.*, Tso, 5:39-41, 14:64-15:6; Huang, 6:9-23, 6:63-67; Madisetti, ¶71. A POSITA would have been motivated to modify **Tso**'s teachings of retrieving a specific version of content and performing "staged" transcoding by implementing these detailed teachings from **Huang** to achieve the beneficial and predictable result of tracking the transcoding status of content on a server and reducing processing involved in re-processing previously-processed data for at least the following independent reasons. Madisetti, ¶¶71.

**First**, **Tso** and **Huang** disclose complementary mechanisms for improving processing efficiency. **Tso**'s teachings of storing "several different versions" of content to avoid "re-transcod[ing]" content, sending/receiving partially-transcoded content, a client requesting cached content that requires "additional transcoding," and using partially-transcoded content for, *e.g.*, "staged" or "collaborative" transcoding, provide **Tso** with partially-transcoded cached content. See Tso, 4:1-5, 4:39-61, 5:35-42, 6:13-17, 14:57-15:6, 15:66-16:14; *see also* §IX.A.1. For example, partially or fully-transcoded content may be further transcoded "to greyscale for users lacking a color display." Tso, 17:9-15. **Tso** further teaches that such

transcoding of already-cached content improves speed and efficiency by eliminating “the need to re-retrieve” or “re-transcode” “content.” Tso, 4:1-5. **Huang** explicitly teaches that retrieving partially-rendered content from local cache also advantageously allows a server to fully render content without unnecessary re-rendering and re-retrieval. Huang, 6:63-67, 7:42-8:11. **Huang** thus provides detailed teachings explaining how to further improve speed and efficiency by utilizing local previously-cached content, including “partially rendered” versions, to avoid “repeating” “rendering operations.” Huang, 6:63-67, 2:9-13. Thus, whether retrieving a fully-transcoded file from Tso’s cache as “partially rendered” content for further transcoding as suggested by Huang, or retrieving a partially transcoded version for further transcoding (*e.g.*, Tso, 14:57-15:6), both paths would improve Tso’s speed and efficiency. Madisetti, ¶72. A POSITA would have been motivated to improve **Tso** with **Huang’s** teachings to allow a server with its own locally-cached and partially-rendered/transcoded copy of content to also complete rendering/transcoding on its own, which advantageously avoids unnecessary re-rendering/transcoding and re-retrieval of content. *Id.*; Huang, 7:23-50, 2:8-13; Tso, 4:1-5.

**Second, Huang** provides additional detailed teachings of how to track transcoding status of content. **Tso** broadly teaches using “GetProperties()” and “SetProperties()” calls to track transcoding status, including as part of “staged”

transcoding processes, but leaves it to a POSITA to implement this function. *E.g.*, Tso, 5:36-42, 14:30-36. **Huang** provides additional teachings of using “RHI” information and “object-specific descriptor information” to track transcoding status. Huang, 5:60-6:23, 6:56-58. **Huang** discloses that when a particular version of content is requested and not available, the server uses a “more detailed version” in cache instead of re-retrieving the original object to “avoid repeating some object rendering operations.” Huang, 7:23-42, 2:8-13, 6:63-67. The server uses the “RHI” value to track the available content, including the different transcoding statuses of cached versions of the content. *Id.*; Huang, 6:9-23, 7:43-64. For example, Huang teaches “stag[ing]” a rendering process by breaking the process into steps, determining which steps to be performed first, and tracking the progress of performing the transcoding steps using RHI information. Huang, 3:29-49, 4:24-52, 6:9-23, 6:56-58, 8:50-9:3. A POSITA would have found it obvious to modify **Tso** with **Huang’s** teachings by using **Tso’s** GetScaledObject() and GetProperties() calls to find and retrieve content with properties specifying a partially-rendered, “more detailed version” to be further refined into the requested content item, *e.g.*, as part of staged transcoding, and using **Tso’s** SetProperties() calls to update RHI values, allowing the system to use the RHI to track the transcoding profiles of different content items in a manner that allows for the location and retrieval of partially-

transcoded content, thereby advantageously reducing unnecessary repeated retrieval and rendering of content. Madisetti, ¶73.

In light of the above teachings, a POSITA would have had a reasonable expectation of success in modifying **Tso** with **Huang’s** teachings of reusing partially-processed content. Indeed, **Tso** already teaches partially processing content to generate requested content and performing such processing at both servers and clients, and that such processing can be “staged” and performed using discrete “transcode service provider[s].” *Tso*, 5:36-42; 12:53-13:11; Madisetti, ¶74. Indeed, it was understood in the art to be advantageous to use partially-transcoded content when serving content to clients. *E.g.*, Ex. 1008 (Delp), Abstract (“intermediate images generated for one requested image can be used by other requested images”); Ex. 1009 (Davis), 4:2-4 (“the system permits pre-existing media content to be reused in a meaningful way”). Modifying **Tso** with **Huang’s** teachings would have been a straightforward application of those teachings in a manner that advantageously improves the efficiency of the system. Madisetti, ¶74.

### 3. Claim Chart

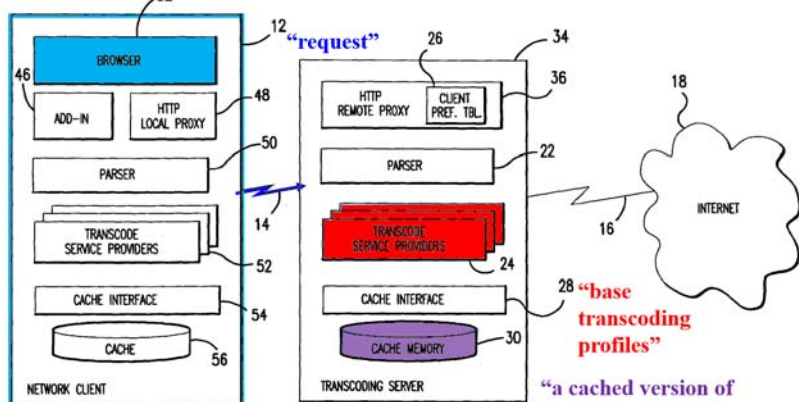
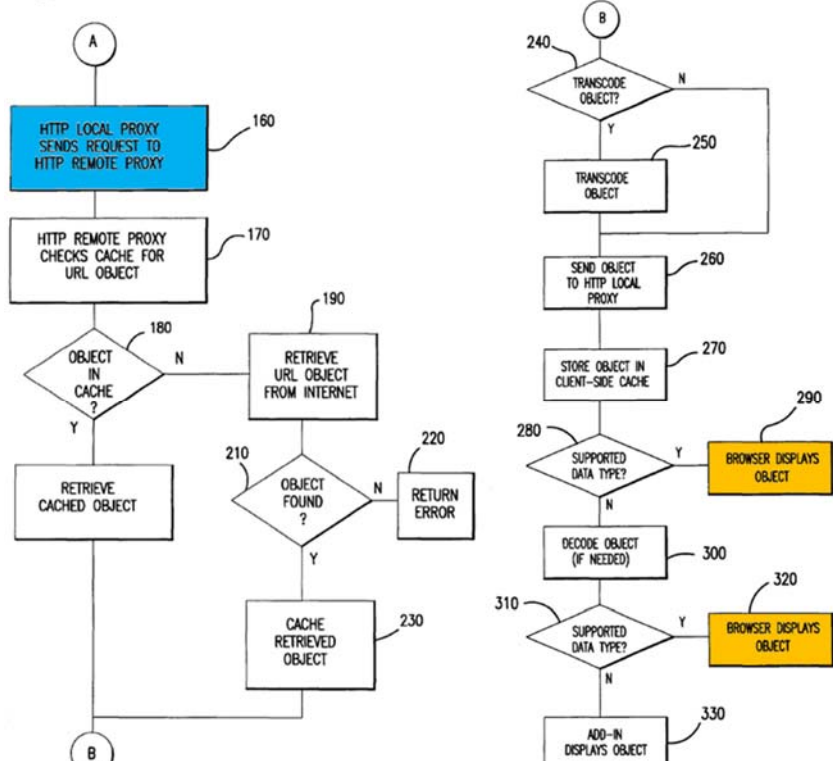
| Claim                                                                 | Tso in view of Huang                                                                                                                                                                                                                                                                                                                                 |
|-----------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| [9.pre] A method for accessing dynamically transcoding media content, | To the extent the preamble is limiting, <b>Tso discloses a method for accessing</b> ( <i>e.g.</i> , providing “information transmitted” between a “network server computer and a network client computer”) <b>dynamically transcoding media content</b> ( <i>e.g.</i> , “image” or “video” “data content” that has been “dynamically transcode[d]”). |

| Claim                                                                                                                                      | Tso in view of Huang                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
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| the method comprising:                                                                                                                     | <p><b><u>E.g., Tso:</u></b></p> <p>Tso discloses a method in which “image” or “video” content is “dynamically transcode[d]” to be provided to and accessed by a “client computer.” Madisetti, ¶¶75-77.</p> <ul style="list-style-type: none"> <li>• <b>2:44-49</b> (“Embodiments of the present invention provide the ability to <i>dynamically transcode information transmitted between, for example, a network server computer and a network client computer.</i>”)</li> <li>• <b>3:45-54</b> (“Looking more closely at the embodiment in FIG. 3, transcoder 20 is coupled to HTTP remote proxy 36. Parser 22 manages <i>the transcoding of data to be transmitted from transcoding server 34 to network client 12.</i> To this end, parser 22 controls transcode service providers 24 to selectively transcode content based on a predetermined selection criterion. For example, one or more transcode service providers 24 may provide the capability to compress and/or scale <i>different types of data content, such as image, video, or HTML (HyperText Markup Language).</i>”);</li> <li>• <b>8:10-13</b> (“Applying the above-listed selection criteria, or combinations thereof, embodiments of the present invention may be used to provide a virtually limitless range of <i>dynamic transcoding services.</i>”)</li> <li>• <b>See also Abstract.</b></li> </ul> |
| [9.a] an act of receiving a request for media content to be delivered to a client presentation system, wherein the requested media content | <p><b>Tso discloses an act of receiving a request for media content</b> (e.g., “Network client 12 communicates requests for information to” “network server 10” for “image” or “video” “data content”) <b>to be delivered to a client presentation system</b> (e.g., “Network client 12” “receives information from” “network server 10” and a “browser displays” the content), <b>wherein the requested media content has a limited number of base transcoding profiles associated therewith, each base transcoding profile corresponding to a cached version of the requested media content</b> (e.g.,</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

| Claim                                                                                                                                                                   | Tso in view of Huang                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
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| has a limited number of base transcoding profiles associated therewith, each base transcoding profile corresponding to a cached version of the requested media content; | <p>“multiple representations of a given cached object” are cached, along with “descriptive information about each representation,” which is “used to determine transcoding properties and transcoding status of a cached object”).</p> <p><b><u>E.g., Tso:</u></b></p> <p><b>Tso</b> discloses that a server receives a “request[] for information” from “network client 12” for “image” or “video” “data content” to be “display[ed]” on the client’s “browser.” Tso, 2:56-65, 3:45-54, Figs. 8-9. Requested content items are stored in a cache that stores “multiple representations of a given cache object.” Tso, 4:64-5:7. The cache also stores “descriptive information” about cache objects that specifies “transcoding properties and transcoding status,” including the transcoding “stage” of a cached version of content specifying how much transcoding has been performed—which discloses a base transcoding profile for each of those objects, on top of which additional transcoding is performed for, <i>e.g.</i>, staged transcoding. Tso, 5:36-42, 6:17-23.<sup>3</sup> Tso, 4:62-5:7, 4:35-40; Madisetti, ¶¶78-80. There are only a limited number of profiles because only previously-transcoded copies of content are stored in memory. <i>See</i> Tso, 4:1-5; Madisetti, ¶80.</p> |

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<sup>3</sup> Tso’s disclosure of a transcoding profile is similar to the ’242’s own disclosure of such a profile. ’242, 8:51-55.

| Claim | Tso in view of Huang                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
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|       | <ul style="list-style-type: none"> <li> <b>Fig. 5</b><br/> <i>“client presentation system”</i><br/>  <p>FIG.5</p> </li> <li> <b>Figs. 8-9</b><br/>  <p>FIG.8</p> <p>FIG.9</p> </li> </ul> <ul style="list-style-type: none"> <li> <b>2:56-65</b> (<i>“Network client 12 communicates requests for information to, and receives information from, network server 10 over a client/server communications link 14. Client/server communications link 14 may</i> </li> </ul> |

| Claim | Tso in view of Huang                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
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|       | <p>comprise, for example, a so-called "slow network" using, for example, POTS (Plain Old Telephone System) dial-up technology or wireless connections. Alternatively, client/server communications link 14 may comprise a so-called "fast network," such as a LAN or WAN (Wide Area Network), which is capable of operating at much higher speeds than are possible with slow networks.”)</p> <ul style="list-style-type: none"> <li>• <b>3:45-54</b> (See [9.pre])</li> <li>• <b>4:1-5</b> (“Server-side <i>cache memory 30 may be used to store both original and transcoded versions of content</i> for later transmission to network client 12 <i>without the need to re-retrieve the content from Internet 18 or to re-transcode the content.</i>”)</li> <li>• <b>4:62-5:7</b> (“Unlike most cache memories, server-side cache interface 28 and server-side cache memory 30 enable maintenance of <i>multiple representations of a given cached object</i>, with <i>descriptive information about each representation</i> included in server-side cache memory 30. In addition, server-side cache interface 28 and server-side cache memory 30 serve as a synchronization point for multi-threaded accesses to cached objects. It should be noted that the illustrated embodiment does not require any particular configuration for server-side cache interface 28 and/or server-side cache memory 30. Indeed, functionality attributed to these components in the various embodiments described herein may be readily implemented in other system components.”)</li> <li>• <b>5:35-42</b> (“The GetProperties() and SetProperties() calls retrieve and store information about cached objects, including information maintained by transcode service provider 24 used to determine transcoding properties and transcoding status of a cached object. <i>Transcode service provider 24 may use such information, for</i></li> </ul> |

| Claim                                                    | Tso in view of Huang                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
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|                                                          | <p><i>example, to determine current compression progress for scaled data access and staged refinements.”)</i></p> <ul style="list-style-type: none"> <li>• <b>14:21-55</b> (“Referring now to FIG. 8, if the requested URL object is not found in client-side cache memory 56, <i>HTTP local proxy 48 transmits a request for the object to transcoding server 34</i> using, for example, a Post of a <i>GetStage(URL, Stage=0)</i> call (Step 160). Upon receipt of this call, HTTP remote proxy 36 <i>invokes parser 22, which in turn issues a GetScaledObject[()]call to server-side cache interface 28 to determine whether a non-transcoded version of the requested hypertext object already exists</i> in the server-side cache memory 30 (Step 170). If the hypertext object is cached, server-side cache interface 28 issues a GetEntry call to open a stream for the cached object (Step 200). In addition, parser 22 may issue <i>a GetProperties (URL, ... ) call to server-side cache interface 28 to retrieve information about the transcoding properties and transcoded status (such as the refinement level) of the cached object</i>. Referring now to FIG. 9, once the requested hypertext object has started to be obtained, <i>parser 22 determines whether (and how) to transcode the object before transmitting it to network client 12</i> (Step 240). Both this decision making process and exemplary transcoding processes are described in detail above. For purposes of the present illustration, assume parser 22 determined that transcoding was appropriate and therefore generated a transcoded version of the requested hypertext object (Step 250).”)</li> <li>• <b>See also 4:39-48, 5:8-61, 6:9-28, 10:37-49, 13:39-44, 14:1-36, 14:64-66, 15:1-6, Fig. 7.</b></li> </ul> |
| [9.b] at the time of the request, and without input by a | <p><b>Tso discloses at the time of the request, and without input by a network administrator (e.g., “when network client 12 requests a hypertext object”), an act of automatically identifying transcoding parameters to be applied to the</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

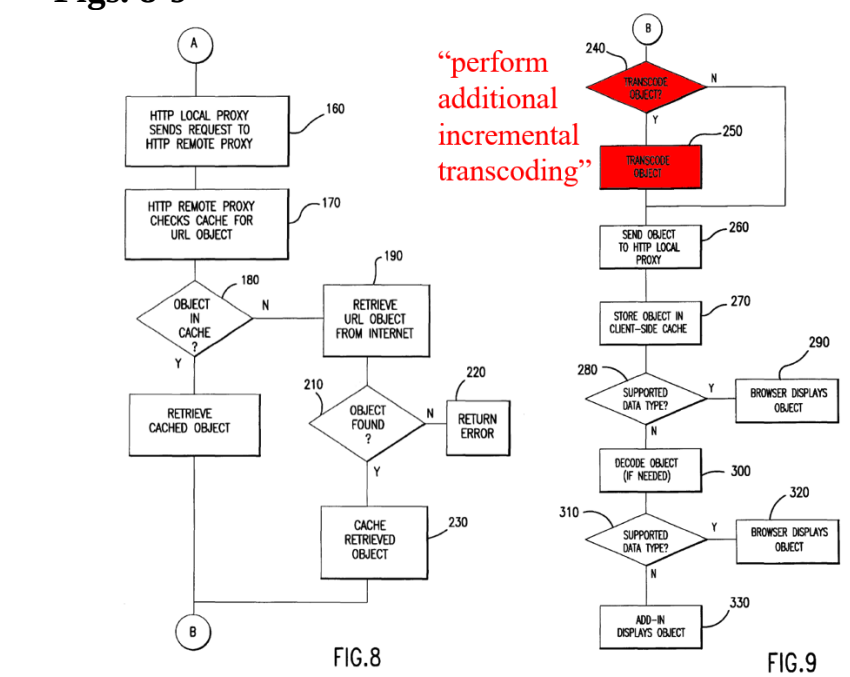
| Claim                                                                                                                                                                                                                                                                                                          | Tso in view of Huang                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
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| <p>network administrator, an act of automatically identifying transcoding parameters to be applied to the requested media content prior to delivery to the client presentation system, wherein identification of transcoding parameters is based on one or more formats of any client presentation system;</p> | <p><b>requested media content prior to delivery to the client presentation system</b> (e.g., “[p]arser 22” “manages the transcoding of data to be transmitted” by invoking “transcode service providers”) <b>wherein identification of transcoding parameters is based on one or more formats of any client presentation system</b> (e.g., “transcode service providers” are invoked based on “predetermined selection criterion” including characteristics of “network client 12”).</p> <p><b><u>E.g., Tso:</u></b></p> <p>See [9.a].</p> <p><b>Tso</b> also discloses that when a “network client” requests a “hypertext object,” the system automatically identifies the “transcode service providers” used to “selectively transcode content” based on “selection criteri[a]” associated with the request. Tso, 3:45-54, 6:64-7:14. This process is controlled by a “parser” and does not require input by a network administrator. See <i>id.</i>; Madisetti, ¶¶81-83. The “predetermined selection criteri[a]” include formats of “network client 12, such as a display dimension, resolution, number of colors, processor type,” and other client formats. Tso, 7:15-29; Madisetti, ¶83.</p> <ul style="list-style-type: none"> <li>• <b>3:45-54</b> (See [9.pre])</li> <li>• <b>6:9-41</b> (“<i>The GetScaledObject() call</i> is similar to GetObject(), and is also used to request an object from server-side cache memory 30; however, it <b>adds support for requesting a particular version of that object, such as a high-quality rendition</b>. Unlike traditional caching proxies, <b>transcode service providers 24 can use server-side cache memory 30 to store several different versions of an object to support clients with different communications and/or presentation capabilities</b>. Thus, <b>an additional “Stage” parameter may be used to indicate which version of the cached object is to be returned to network client 12</b>. Where transcode service provider 24 is configured to scale network content, <b>it may use this parameter to request a version of a</b></li> </ul> |

| Claim | Tso in view of Huang                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
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|       | <p><i>cached object having, for example, a default scaled quality, a refinement to a better-quality version, or the original non-scaled version.</i></p> <p><i>In this embodiment, when network client 12 requests a hypertext object, HTTP remote proxy 36 uses either the <code>GetObject()</code> or <code>GetScaledObject()</code> call (depending on if network client 12 is capable of receiving scaled/transcoded datatypes) to retrieve the hypertext object from parser 22. If the hypertext object is not found, parser 22 uses the <code>CreateEntry()</code> call to <b>create an entry (in effect, a placeholder) in server-side cache memory 30 for the new object.</b> The new entry is returned to HTTP remote proxy 36, which requests the hypertext object from Internet 18. As a data stream for the hypertext object is returned, HTTP remote proxy 36 calls parser 22 using the <code>PutObject()</code> call, passing into this call the new entry and the handle to the data stream to be placed into the entry. <b>Parser 22 selects an appropriate transcode service provider 24 based, for example, on the content type of the data stream.</b> In this context, <b>the term content type encompasses</b> a datatype, an HTTP MIME (Multipurpose Internet Mail Extensions) type, <b>a content format, and so on.</b>")</i></p> <ul style="list-style-type: none"> <li>• <b>6:64-7:14</b> (“As noted above, <b>parser 22 may selectively invoke one of transcode service providers 24 based upon satisfaction of a predetermined selection criterion.</b> Such selection criterion may comprise, for example, information contained in a header portion of a data packet received by transcoding server 34, such as a MIME type, a URL (Uniform Resource Locator), a last modified time indicator and so on. Alternatively, <b>the predetermined selection criterion may comprise information contained in a data portion of such a data packet,</b> such as particular content, key words, structures (for example, heading levels), and so on. Still further, <b>the predetermined selection criterion may comprise a condition of the device on which</b></li> </ul> |

| Claim                                                                                                                                                                        | Tso in view of Huang                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
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|                                                                                                                                                                              | <p><b><i>transcoding server 34 is installed</i></b> (for example, a current processing load), a condition of a device to which transcoding server 34 is coupled, or a condition of a communications link. Transcoding server 34 may provide the ability to dynamically update such predetermined selection criteria.”)</p> <ul style="list-style-type: none"> <li>• 7:15-29 (“<b><i>The following discussion provides still more examples of the types of information which may be used to dictate which of transcode service providers 24 are invoked.</i></b> It should be noted, however, that these examples are provided by way of illustration only, and are not intended to limit in any way the scope of the invention claimed herein. <b><i>The predetermined selection criterion may comprise: (1) network client 12, such as a display dimension, resolution, number of colors, processor type, memory/disk configuration, modem or network interface type, installed add-in boards</i></b> (for example, hardware compression/decompression), <b><i>software configuration</i></b> (for example, availability of pre-installed software decompression modules), <b><i>physical location/proximity</i></b> (for example, as determined by a telephone area code), <b><i>and user identity....</i></b>”)</li> <li>• See also 5:62-67, 6:64-7:14, 12:55-59.</li> </ul> |
| [9.c] an act of determining that the transcoding parameters to be applied to the requested media content prior to delivery to the client presentation system are the same as | <p><b>Tso discloses an act of determining that the transcoding parameters to be applied to the requested media content prior to delivery to the client presentation system (see [9.b]) are the same as transcoding parameters that are being applied to the requested media content (e.g., determining that “multiple network clients 12” have made “requests for the same hypertext object”) prior to delivery to another client presentation system (e.g., prior to delivering “appropriate versions” of the content to both clients “concurrently”).</b></p> <p><b><u>E.g., Tso:</u></b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

| Claim                                                                                                                                        | Tso in view of Huang                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
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| <p>transcoding parameters that are being applied to the requested media content prior to delivery to another client presentation system;</p> | <p>See [9.a]-[9.b].</p> <p><b>Tso</b> also discloses that each time a proxy receives a request for a content item, it first checks whether a “copy of the required version” is available. Tso, 10:22-27. As discussed for [9.b], the “required version” is generated using transcoding parameters specified using “selection criteri[a].” See [9.b]. When using “multiple-thread processing” to process “requests for the same hypertext object from multiple network clients,” the server determines that the two clients are requesting the same content; the content is therefore “retrieved from Internet 18 once” to handle both requests. Tso, 6:51-63. This process occurs while transcoding parameters are being applied to the earlier client system because the results of the transcoding process are transmitted “concurrently”—which not only renders obvious, but affirmatively discloses handling the second request while the content is being transcoded in response to the first request. <i>Id.</i> The system determines “appropriate versions” for both clients; if two similar client systems request the same content, the “appropriate versions” are the same version and therefore are generated using the same transcoding parameters. <i>Id.</i>; Madisetti, ¶¶84-86.</p> <ul style="list-style-type: none"> <li>• <b>6:51-63</b> (“Multiple-thread processing improves the efficiency of the present embodiment by not waiting for a hypertext object to be received in its entirety by HTTP remote proxy 36, or added in its entirety to server-side cache memory 30, before beginning to send the object to network client 12. <b><i>Another benefit of multiple-thread processing is that parser 22 may efficiently process requests for the same hypertext object from multiple network clients 12. The hypertext object need only be retrieved from Internet 18 once, and appropriate versions may be transmitted to such multiple network clients 12 concurrently. The hypertext object need only be retrieved from Internet 18 once, and appropriate versions may be transmitted to such multiple network clients 12 concurrently.</i></b> It</li> </ul> |

| Claim                                                                                                                                                                                                                                                                   | Tso in view of Huang                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
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|                                                                                                                                                                                                                                                                         | <p>should be noted, however, that embodiments of the present invention may be implemented without multiple-thread processing.”)</p> <ul style="list-style-type: none"> <li>• <b>10:22-27</b> (“HTTP remote proxy 36 may also inform parser 22 of any applicable user preferences (<i>e.g.</i>, from client preference table 26). Upon being invoked, <i>parser 22 first calls cache interface 28 with the requested hypertext object to determine whether a copy of the required version already resides in server-side cache memory 30.</i>”)</li> <li>• <i>See also 4:62-5:18, 5:42-51, 6:9-28, 6:45-50, 14:64-15:6.</i></li> </ul>                                                                                                                                                                                                                                                                                                                                                                            |
| <p>[9.d] an act of transcoding the requested media content in accordance with the identified transcoding parameters, such that the identified transcoding parameters are used to perform additional incremental transcoding on top of the base transcoding profile;</p> | <p><b>Tso discloses an act of transcoding the requested media content in accordance with the identified transcoding parameters</b> (<i>e.g.</i>, “transcod[ing] the object before transmitting it to network client 12” using “an appropriate transcode service provider 24” that is “invoke[d] ... based upon satisfaction of a predetermined selection criterion”).</p> <p><b><u>E.g., Tso:</u></b></p> <p><i>See [9.a]-[9.c].</i></p> <p><b>Tso</b> also discloses that, when a user issues a request for content, the server uses a “GetScaledObject()” call to retrieve a particular version of content from the cache. Tso, 6:9-41. <b>Tso</b> further discloses that cached content has properties including the “current compression progress for scaled data access and staged refinements.” Tso, 5:36-42. Once the content is retrieved, the server then performs transcoding based on transcoding parameters specified by “selection criteri[a].” Tso, 7:15-29, 14:47-55. Madisetti, ¶¶87-88, 90.</p> |

| Claim | Tso in view of Huang                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
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|       | <ul style="list-style-type: none"> <li> <b>Figs. 8-9</b>  <p>FIG. 8 is a flowchart showing the process of handling a request from an HTTP local proxy to an HTTP remote proxy. The process starts at node A, where the HTTP local proxy sends a request to the HTTP remote proxy (160). The HTTP remote proxy checks its cache for the URL object (170). A decision is made at node 180: 'OBJECT IN CACHE?'. If 'Y' (Yes), the cached object is retrieved (210). If 'N' (No), the URL object is retrieved from the internet (190). A decision is made at node 210: 'OBJECT FOUND?'. If 'Y' (Yes), the object is cached (230). If 'N' (No), an error is returned (220). The process ends at node B.</p> <p>FIG. 9 is a flowchart showing the process of transcoding an object. The process starts at node B, where a decision is made at node 240: 'TRANSCODE OBJECT?'. If 'Y' (Yes), the object is transcoded (250). A red annotation 'perform additional incremental transcoding' points to this step. The transcoded object is then sent to the HTTP local proxy (260) and stored in the client-side cache (270). A decision is made at node 280: 'SUPPORTED DATA TYPE?'. If 'Y' (Yes), the browser displays the object (290). If 'N' (No), the object is decoded (if needed) (300). A decision is made at node 310: 'SUPPORTED DATA TYPE?'. If 'Y' (Yes), the browser displays the object (320). If 'N' (No), an add-in displays the object (330).</p> </li> <li>           5:35-42, 14:21-55 (See [9.a])         </li> <li>           6:9-41, 7:15-29 (See [9.b])         </li> <li>           15:66-16:44 (“In view of the foregoing description, it should be apparent that it is possible for there to be more than one so-called "smart" proxy arranged between a client device and a content server device. If left unchecked, such a condition can result in content being altered excessively (for example, too many ads inserted, multiple lossy compressions resulting in indecipherable images). To address this problem, an embodiment of the present invention may use <b>a special proxy-to-proxy protocol that extends the existing request/ response structures to indicate whether and what sort of transcoding has already been performed on the content.</b> Such <b>a specialized protocol</b>, in addition to other proxy-to-proxy messages which may be implemented on an as-needed basis, <b>enables multiple proxies to work collaboratively</b>, yet still transparently         </li> </ul> |

| Claim | Tso in view of Huang                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
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|       | <p>to users, client software, existing “standard” proxies and content servers.”)</p> <ul style="list-style-type: none"> <li>• <i>See also</i> 5:20-31, 6:64-7:3,12:53-13:5, 14:59-15:6.</li> </ul> <p><b>Huang further discloses that the identified transcoding parameters are used to perform additional incremental transcoding</b> (<i>e.g.</i>, “perform the rendering locally” if “further rendering is necessary”) <b>on top of the base transcoding profile</b> (<i>e.g.</i>, use the “RHI” of an object in “local cache” “to see if any further rendering is necessary” before “determin[ing] whether or not” to perform “further rendering”).</p> <p><b><u>E.g., Huang:</u></b></p> <p><b>Huang</b> teaches that when the RHI information on the system includes a profile indicating that “a copy of the requested object can be found in the local cache,” the system retrieves that copy and, using the RHI information “associated with a particular object,” checks whether “any further rendering is necessary,” and then performs additional transcoding on top of the stored base transcoding profile to the retrieved copy. Huang, 6:9-23, 6:56-58, 7:43-64; <i>see also</i> §IX.A.2 (rendering refers to transcoding). The system then updates the RHI to reflect that the content has been further transcoded. Huang, 6:9-23; Madisetti, ¶¶89-91.</p> <p>As discussed in §IX.A.2, a POSITA would have been motivated to modify <b>Tso</b> with these teachings to advantageously reduce re-transcoding and re-retrieval of content while tracking available versions of content, yielding a system that retrieves a partially-transcoded version of content using a GetScaledObject() call and then incrementally further transcodes content based on a cached base transcoding profile. Tso, 6:9-41; Huang, 7:43-57; Madisetti, ¶92.</p> <ul style="list-style-type: none"> <li>• <b>Abstract</b> (“The criteria for such a method can include the bandwidth and current load of the network links among proxies, and/or the respective CPU usage of the proxies. If an <i>object rendering can be staged, e.g.,</i></li> </ul> |

| Claim | Tso in view of Huang                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
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|       | <p><i>different resolution rendering, it can be performed by more than one of the proxies. The determination of which proxy performs which stage of the multistage rendering can also be adaptive to the dynamic load conditions, as well as network conditions.”)</i></p> <ul style="list-style-type: none"> <li>• <b>4:8-15</b> (“<i>At an intermediate node having a less detailed version of the requested object the method includes such information in the RHI</i>, forwards the request to another node, and at another intermediate node that has a more detailed version of the requested object, <i>the node decides</i> whether to return the more detailed version of the requested object, without further local rendering, or <i>to instead perform some rendering and return a partially rendered object</i>, or to instead return a completely rendered object.”)</li> <li>• <b>6:9-23</b> (“When a requested object passes through the proxy network, <i>any proxy server 110, 111, 112 can perform a complete or partial rendering based on the associated RHI</i>. For example, <i>if the entire rendering process can be partitioned into two or more steps, a given one of the proxy servers (e.g., 110) may decide to perform only one of the rendering steps</i>, and to then forward the partially rendered object to another proxy server (e.g., 111). <i>The proxy server 110 also modifies the RHI to reflect the processing that it performed</i>, and forwards the modified RHI as well to the proxy server 111.”)</li> <li>• <b>6:56-58</b> (“An object renderer 206, which performs object rendering according to the <i>RHI associated with a particular object</i>, may also be included in the proxy server logic 203.”)</li> <li>• <b>6:63-67</b> (“<i>Proxy server logic 203 may also include a cache manager 207 which maintains a local copy of the partially rendered or completely rendered objects in order to avoid repeating some object rendering operations with the same proxy server.</i>”)</li> </ul> |

| Claim | Tso in view of Huang                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
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|       | <ul style="list-style-type: none"> <li> <p><b>7:43-64</b> (“If a copy of the requested object can be found in the local cache, at Step 402, <i>the proxy server checks the cached object against the RHI to see if any further rendering is necessary</i>. Note that the RHI contains the capability specification of the receiving device (i.e. the device that originally requested the object that was just found in the cache). <i>By checking the RHI, the proxy server 110, 111, 112 can determine if any further rendering is necessary</i>. If no further rendering is necessary, the proxy server modifies the RHI to indicate its local condition for providing rendering services and returns the object at step 403. <i>If further rendering is found to be necessary, based on the RHI or the requesting device, then the proxy server executes at step 405 a selection function to determine whether or not it wishes to perform the rendering locally</i>. If the proxy server decides not to perform any rendering locally, the proxy server modifies the RHI to indicate its local load condition for providing such rendering services and returns the object along with the modified RHI at step 406. <i>If the proxy server instead decides to perform the rendering locally, it checks the RHI at step 407 to determine if it wishes to complete the entire rendering process</i>, or just some part of the required rendering process.”)</p> </li> <li> <p><b>10:56-11:5</b> (“<i>If, however, for some reason the proxy server elects to not completely render the image object</i>, or to not render the image object at all, due to, for example, loading considerations or a lack of suitable software, then the PICS label of the image object will not reflect a condition compatible with the display capabilities of the PDD. <i>For example, assume that a given one of the proxy servers 110, 111, 112 elects to only modify the color encoding of the received image object from 16 level to 1</i>, then the modified PICS label as received by a next proxy server will be r(c 1 s 1000), which is a form still not</p> </li> </ul> |

| Claim                                                                                                                                                                                                                                                                                                                                                                                          | Tso in view of Huang                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
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|                                                                                                                                                                                                                                                                                                                                                                                                | <p>compatible with the PDDs' RHI of d(c 1 s 2). <b><i>The next proxy server 110, 111, 112 may then elect to render the received image object to reduce the image size from 1000 megabytes to 2 megabytes, resulting in the modified PICS label of r(c 1 s 2), which is a form that is compatible with the PDDs' RHI of d(c 1 s 2).</i></b>)</p> <ul style="list-style-type: none"> <li>• <b><i>See also 10:20-34.</i></b></li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <p>[9.e] wherein the act of transcoding the requested media content in accordance with the identified transcoding parameters comprises:</p> <p>an act of selecting a pre-existing base transcoded version of the requested media content comprising intermediate derivative media that has been transcoded in accordance with only a portion of the identified transcoding parameters; and</p> | <p><b>Tso discloses wherein the act of transcoding the requested media content is in accordance with the identified transcoding parameter (see [9.d]) comprises: an act of selecting a pre-existing base transcoded version of the requested media content (e.g., an act of “requesting a particular version of [the requested] object” using a “Stage” parameter that is tracked with the “descriptive information” stored about each content item) comprising derivative media that has been transcoded (e.g., comprising “a version of a cached object having, for example, a default scaled quality” that can be “refine[d] to a better-quality version” as part of “staged” refinement).</b></p> <p><b><u>E.g., Tso:</u></b></p> <p>See [9.a]-[9.d].</p> <p><b>Tso</b> also discloses that the cache stores “several different versions” of content—each of which is stored with “descriptive information” that describes a pre-existing base transcoded version of the requested media content. Tso, 6:9-23. <b>Tso</b> further discloses that cached versions may be used for “staged refinements” such that the content is cached with parameters specifying how much transcoding has been applied already, and how much remains to be applied. Tso, 5:36-42. When receiving a request for content, <b>Tso</b> discloses that the system requests a “particular version of the object” such as a “staged” “refinement” of the content using a GetScaledObject() call, which is a derivative version of original content that has been transcoded to reach a transcoding “stage.” Tso, 6:9-23; Madisetti, ¶¶93-94, 96.</p> |

| Claim | Tso in view of Huang                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
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|       | <ul style="list-style-type: none"> <li>• 4:62-5:7, 5:35-42 (<i>See</i> [9.a])</li> <li>• 6:9-41 (<i>See</i> [9.b])</li> <li>• <i>See also</i> 14:59-63, 15:66-16:14.</li> </ul> <p><b>Huang further discloses selecting a pre-existing base transcoded version of the requested media content</b> (<i>e.g.</i>, “determin[ing] if the requested object is available in the cache” in the form of “a local copy of the partially rendered ... object”) <b>comprising intermediate derivative media that has been transcoded in accordance with only a portion of the identified transcoding parameters</b> (<i>e.g.</i>, comprising a “partially rendered” media item for which the “RHI” information indicates that “only one” of “two or more” steps is performed and “further rendering is necessary”).</p> <p><b><u>E.g., Huang:</u></b></p> <p><i>See</i> [9.d].</p> <p><b>Huang</b> also discloses that a cache stores “partially” and “completely” rendered (which includes transcoded—<i>see</i> §IX.A.2) versions of content. Huang, 6:63-67. When receiving a request for content, the cache manager will retrieve a “more detailed version” that “may be further rendered ... in order to satisfy the request.” Huang, 7:34-57. Each content item is stored with “RHI” information specifying “processing” that has already been “performed” on the content, including for example whether only one of “two or more steps” of processing has been performed, and additional steps must be performed for the content to be “rendered into a form” that the client “is capable of displaying.” Huang, 6:9-23, 6:56-67, 10:46-56; Madisetti, ¶¶95-97.</p> <p>As discussed in §IX.A.2 and for [9.d], a POSITA would have been motivated to modify <b>Tso</b> with this teaching to advantageously avoid unnecessarily re-retrieving and re-transcoding content, yielding a system that uses a GetScaledObject() call to request a “more detailed,” partially rendered derivative version of the original content stored in</p> |

| Claim | Tso in view of Huang                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
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|       | <p>cache for which further transcoding is required, <i>e.g.</i>, to take content that has undergone “staged” transcoding, and complete the final stage of transcoding to convert the content to a form the client is capable of displaying. Huang, 7:43-57. Madisetti, ¶98.</p> <ul style="list-style-type: none"> <li>• 6:9-23, 7:43-64 (<i>see</i> [9.d])</li> <li>• 6:56-67 (“<b>An object renderer</b> 206, which <i>performs object rendering according to the RHI associated with a particular object</i>, may also be included in the proxy server logic 203. Object renderer may be a computer program which renders, by example, a color image into a black-and-white image, or one that reduces a complex HyperText Markup Language (HTML) text into a simple HTML text containing only a summary of the HTML headers. <b>Proxy server logic 203 may also include a cache manager 207 which maintains a local copy of the partially rendered or completely rendered objects</b> in order to avoid repeating some object rendering operations with the same proxy server.”)</li> <li>• 7:25-36 (“At Step 401, the object request handler 205 <b>checks with the cache manager 207 to determine if the requested object is available in the cache</b>. It should be noted that <b>the cache</b> may contain a less detailed version of the requested object, or it <b>may contain a more detailed version</b>. <b>A less detailed version</b> of the object does not satisfy the requirement and a request for the object must be sent out, typically to the appropriate one of the content servers 120, 121 or to another proxy server. However, <b>a more detailed version of the object may be further rendered by the proxy server 110, 111, 112 in order to satisfy the request.</b>”)</li> <li>• 10:46-56 (“It can be appreciated that a proxy server 110, 111, 112 that receives an image object having the above-noted PICS label r( c 16 s 1000), in response to a request from the PDD having the above-noted RHI d( c</li> </ul> |

| Claim                                                                                                                                                                                                                        | Tso in view of Huang                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
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|                                                                                                                                                                                                                              | <p>1 s 2), will be informed that the PDD is incapable of displaying the image object as received, and that <b><i>the image object will need to be rendered into a form that the PDD is capable of displaying. The proxy server may perform the entire rendering process, and will then modify the PICS label of the image object to be r(c 1 s 2), i.e., to indicate a format compatible with the requesting PDD’s display capabilities.</i></b>)</p> <ul style="list-style-type: none"> <li>• See also 4:8-15, 9:5-7, 11:15-55.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <p>[9.f] an act of creating a final version by incrementally performing further transcoding of the pre-existing base transcoded version in accordance with a remaining portion of the identified transcoding parameters;</p> | <p><b>Huang discloses an act of creating a final version by incrementally performing further transcoding of the pre-existing base transcoded version</b> (e.g., “complet[ing] the entire rendering process” to produce a “completely rendered... object”) <b>in accordance with a remaining portion of the identified transcoding parameters</b> (e.g., in accordance with “further rendering [that] is found to be necessary” for a “cached object”).</p> <p><b><u>E.g., Huang:</u></b></p> <p>See [9.d]-[9.e].</p> <p>In addition to <b>Tso’s</b> disclosure of retrieving a partially-rendered version of content using a GetScaledObject() call (and using such a call as rendered obvious by <b>Tso</b> in view of <b>Huang</b>) as discussed for [9.e], <b>Huang</b> also discloses that when a partially-rendered object is retrieved from cache as discussed in [9.e], the system determines that “further rendering” is necessary, and then will “complete the entire rendering process” in order to “return[] the ... completely rendered ... object” “to the requesting client device.” Huang, 7:43-57, 8:1-11, 9:4-14, 10:46-56. This further processing includes, e.g., the remaining steps of “two or more” steps required to fully render the content. Huang, 6:9-23. Madisetti, ¶¶99-101.</p> <p>As discussed for [9.e] and in §IX.A.2, a POSITA would have been motivated to modify <b>Tso</b> with this teaching to advantageously reduce unnecessary re-retrieval and re-</p> |

| Claim | Tso in view of Huang                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
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|       | <p>transcoding of content, yielding a system in which, once an intermediate content item is retrieved by using a GetScaledObject() call, further transcoding is performed based on the retrieved content to complete the remaining transcoding steps to generate the completely rendered object. Tso, 4:39-61, 14:57-15:6; Huang, 7:43-57, 8:1-11, 9:4-14; Madisetti, ¶102.</p> <ul style="list-style-type: none"> <li> <b>Fig. 5:</b> <pre> graph TD     501{FURTHER RENDERING?} -- NO --&gt; 502[CACHE MANAGER]     502 --&gt; 503[MODIFY RHI AND RETURN OBJECT]     501 -- YES --&gt; 504{RENDERING LOCALLY?}     504 -- NO --&gt; 505[MODIFY RHI AND RETURN OBJECT]     504 -- YES --&gt; 506{COMPLETE ENTIRE REMAINING RENDERING?}     506 -- NO --&gt; 508[DIVIDE REMAINING RENDERING INTO STEPS AND DETERMINE WHICH STEPS TO PERFORM]     508 --&gt; 507[OBJECT RENDERER]     507 --&gt; 509[CACHE MANAGER]     509 --&gt; 505     506 -- YES --&gt; 505     </pre> <p style="text-align: center;">FIG.5</p> </li> <li> <b>6:9-23, 6:63-67, 7:43-64</b> (See [9.d])         </li> <li> <b>8:1-11</b> (“In either case, and <i>after making the decision to perform local rendering at step 405, the proxy server 110, 111, 112 calls the object renderer 206 to perform the object rendering at Step 408. After the rendering process is complete</i> (either a complete or partial rendering), the cache manager 207 is called at step 410 to determine whether or not to cache a copy of the rendered object locally. The proxy server 110, 111, 112 then modifies the RHI at step 406 to reflect its local condition and returns the rendered (completely rendered or partially rendered) object along with the modified RHI.”)         </li> <li> <b>10:46-56</b> (See [9.e])         </li> </ul> |

| Claim                                                                                                     | Tso in view of Huang                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
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|                                                                                                           | <ul style="list-style-type: none"> <li>• <i>See also</i> 4:8-15, 9:4-14.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| [9.g] an act of delivering the transcoded media content to both client presentation systems concurrently. | <p><b>Tso discloses an act of delivering the transcoded media content to both client presentation systems concurrently</b> (e.g., “transmit[ing]” “appropriate versions” of “a hypertext object” “to such multiple network clients 12 concurrently”).</p> <p><b><u>E.g., Tso:</u></b></p> <p><i>See</i> [9.c], [9.f].</p> <p><b>Tso</b> also discloses that the system simultaneously handles multiple client requests such that, once transcoded content for clients has been generated, the appropriate versions for both clients “may be transmitted to such multiple network clients 12 concurrently.” Madisetti, ¶¶103-05.</p> <ul style="list-style-type: none"> <li>• <b>6:51-63</b> (<i>See</i> [9.c])</li> <li>• <b><i>See also</i> 4:1-5, 5:25-35, 5:42-61, 6:13-23, 6:37-50, 10:37-49, 12:53-67, 14:47-63.</b></li> </ul> |

**B. Grounds 2/3: Samaniego**

**1. Samaniego**

Samaniego, published on June 20, 2002, is §102(b) prior art as of that date (see §IV.B.1) because the earliest possible priority date for the ’242 is November 7, 2005—the filing date of Application No. 11/269,916 (Ex. 1010, “’916 application”). The ’242 purports to claim priority to the application that published as Samaniego and later issued as the ’009 (Ex. 1011) as well as Application No. 09/425,326 that issued as the ’575 (Ex. 1012), but both of these priority claims are invalid because none of the ’242’s named inventors is “name[d] ... in the previously filed application[s].” 35 U.S.C. §120. A valid priority claim requires the “involved

application” and the “earliest application” to “share at least one common inventor.” *Polaris*, IPR2013-00323, Paper 62 at 25. None of the ’242’s named inventors—Messrs. Barger, Johnson, Butler, Destremps, Pochron, and Brown—is identified as an inventor on Samaniego, the ’009, or the ’575. *See* Exs. 1007, 1011, 1012. These priority claims therefore are invalid. *Polaris*, IPR2013-00323, Paper 62 at 25. Instead, the earliest purported priority application that shares at least one common inventor with the ’242 is the ’916 application.<sup>4</sup>

PO cannot dispute that Samaniego fully discloses ’242 Claim 9. There is no substantive difference between the ’242’s and Samaniego’s specifications: the only changes are an updated paragraph addressing priority, syntactical edits (*see* Ex. 1013), and more formalized drawings (*compare* ’242 and Samaniego Figs. 1-23). Madisetti, ¶¶106-07. If the ’242’s specification supports Claim 9, then Samaniego anticipates Claim 9 based on those same disclosures. Nonetheless, to the extent PO is permitted to dispute Samaniego’s disclosures, as set forth in Grounds 3-4, Samaniego, alone and alternatively in view of Tso, renders obvious claim 9.

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<sup>4</sup> Petitioner does not take a position as to whether the ’242 is actually entitled to the filing date of the ’916 application.

**2. PO Intentionally Changed Inventorship**

The original assignee, Equilibrium, and its current CEO Sean Barger, intentionally identified different inventors in Samaniego and the '242. Before the application published as Samaniego was filed in 2001, Mr. Barger left Equilibrium, and did not return until 2004 when his company (AMPS d/b/a Equilibrium) acquired the assets of Equilibrium. *See* Ex. 1014. Before Mr. Barger returned, Mr. Samaniego left Equilibrium in 2003 to join imaging software company Scene7, which became the exclusive distributor for Equilibrium's MediaRich product, which Equilibrium alleges practices the '242. *See* Exs. 1014-1016. In September of 2004, Mr. Barger sued Mr. Samaniego, Scene7, and Equilibrium's prior ownership alleging misconduct when transferring assets to Scene7. *See* Ex. 1020.

While this litigation was ongoing, Mr. Barger and Equilibrium filed Application No. 11/269,916 ("916")—an alleged "continuation-in-part," but, as discussed in §IX.B.1, with a substantively identical specification to Samaniego. *See generally* Ex. 1010; Ex. 1021. The '916 and Samaniego initially named the same inventors (*see* Ex. 1010, 68-70; Ex. 1034, 8), but the USPTO in 2005 raised that those named inventors did not sign the application. Ex. 1010, 76-77. In response, Mr. Barger and Equilibrium amended the application, adding Mr. Barger as an inventor, and attested that the applicant was unable to reach any of the original named inventors—an attestation that was blatantly false given Mr. Barger's ongoing

and active litigation against Mr. Samaniego. *See* Ex. 1010, 78-98; Ex. 1020, 1. Mr. Barger and Equilibrium then filed Application Nos. 12/173,747 and 12/238,842, both again with substantively identical specifications to Samaniego (*see* Exs. 1026-1029), both of which replaced all of Samaniego’s named inventors with new named inventors. *See* Ex. 1026, 76-87; Ex. 1027, 77-86; Ex. 1007. The ’242 issued from a divisional of 12/173,747. Equilibrium thus intentionally changed inventorship in the ’242—despite maintaining the same specification.

Samaniego therefore qualifies as invalidating prior art under pre-AIA §102(b).<sup>5</sup>

### 3. Claim Chart

| ’242                                                                         | Samaniego                                                                                                                                                                                                                                                                                                                                                                                |
|------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>[9.pre] A method for accessing dynamically transcoding media content,</b> | <ul style="list-style-type: none"><li>• <b>[0125] (“A preferred embodiment of the method scripts the image creation process in HTML to create a dynamic Web site.”)</b></li><li>• <i>See also</i> [0094], [0143], [0143]-[0144], [0147]-[0148], [0151]-[0152], [0155], [0157], Figs. 21-22.</li></ul> Madisetti, ¶¶109-10. |

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<sup>5</sup> PO already changed inventorship both during prosecution of the ’242 and a parent application, omitting all of Samaniego’s inventors. PO already had the opportunity to identify common inventors in the ’242 and Samaniego to preserve the priority chain, but it did not to do so. The Board and the Office should not permit PO to change the inventorship of either Samaniego or the ’242 patent.

| '242                                                                                                                                                                                                                                                                                                                                    | Samaniego                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| the method comprising: <sup>6</sup>                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <p><b>[9.a]</b> an act of <b>receiving a request for media content to be delivered to a client presentation system, wherein the requested media content has a limited number of base transcoding profiles associated therewith, each base transcoding profile corresponding to a cached version of the requested media content;</b></p> | <p><b>Samaniego</b> discloses that a user requests a web page that has embedded URLs. Samaniego, [0108], [0138]. Those URLs “direct” a user’s <b>“browser”</b> to <b>“generate requests for media content.”</b> Samaniego, [138]. <b>Cached versions of the requested content are stored in a “media cache database.”</b> Samaniego, [0103], Fig. 6. The cache database also stores <b>“references to the created images.”</b> Samaniego, [0104], Fig. 6. These references <b>“are the script used to create the image, the names of the images used to create the image, the dates of those files, and the HTML that represents the created image”</b>—which is a “base transcoding profile.” Samaniego, [0104]. These profiles are “limited” because they are created for only previously-cached versions of content. Madisetti, ¶¶111-12.</p> |

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<sup>6</sup> Color is used consistently through Grounds 2-3 to show disclosures from the cited art. Madisetti, ¶108.

| '242 | Samaniego                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      | <ul style="list-style-type: none"> <li> <b>Fig. 6</b> </li> <li> <b>[0103]</b> (“If the image has not been created, the media caching subsystem 620 hands the HTML tag to a media creation subsystem 630. The media creation subsystem 630 returns an image to the media caching subsystem 620. <b>The media caching subsystem 620 adds the created image and the HTML tag to a media cache database 640.</b>”) </li> <li> <b>[0104]</b> (“The <b>media cache database 640 contains references to the created images 645. In a preferred embodiment, the references are the script used to create the image, the names of the images used to create the image, the dates of those files, and the HTML that represents the created image.</b> The media caching subsystem 620 performs lookups in this database to determine if the image has been created. If the image has not been created the media caching subsystem 620 calls upon the media creation subsystem 630 to <b>create the image and then store the results in the media cache database 640.</b>”) </li> </ul> |

| '242                                                                                                                                                                                                                                               | Samaniego                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                                    | <ul style="list-style-type: none"> <li>• [0108] (“<b>A user requests a Web page from a Web browser 120.</b>”)</li> <li>• [0138] (“The delivery of an HTML document and media according to a preferred embodiment of the invention is described with reference to FIG. 18. Resource locators (URLs) are placed within HTML documents 301 accessible to the Web server 110. These <b>URLs direct browsers to generate requests for media to the system 100.</b>”)</li> <li>• [0151] (“The final media is passed to a user profile system 2160 wherein browser characteristics specified through proprietary tags within the URL are inspected, and appropriate modification to the media is performed, based on such characteristics. <b>The resulting image is</b> handed to the media cache system 2120 for caching and <b>returned to the browser 120.</b>”)</li> <li>• <i>See also</i> [0097], [111], [0133], [0138], [0148], [0151]-[0152], [0154], Figs. 21-22.</li> </ul> |
| <p><b>[9.b] at the time of the request, and without input by a network administrator, an act of automatically identifying transcoding parameters to be applied to the requested media content prior to delivery to the client presentation</b></p> | <ul style="list-style-type: none"> <li>• [0148] (“Upon receipt of the page 301, <b>the browser contacts the system 100 requesting media specified in the URL. The system parses the URL 2100 to determine the content generation procedure 2140 to execute,</b> any corresponding input parameters to be used by such procedure, any dynamic content processing 2150 to be performed by dynamic media procedures, <b>any user profile information 2160 to be used to modify the resulting image,</b> and any cache control HTTP headers 2190 the site instructs to accompany the resulting image.”)</li> <li>• [0155] (“<b>Table D below is a list of example proprietary URL tags used for content generation within the system</b> according to the preferred embodiment of the invention. Additional tags may be added to the system as necessary.”)</li> </ul>                                                                                                             |

| '242                                                                                                                                                                                                                                                                                                                             | Samaniego                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
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| <p><b>system, wherein identification of transcoding parameters is based on one or more formats of any client presentation system;</b></p>                                                                                                                                                                                        | <ul style="list-style-type: none"> <li>• <b>Table D (“p-user profile string Specifies a user profile identifier used to modify the final image prior to returning the image to the browser, thus allowing clients to modify the image returned to the browser to account for individual browsing conditions.”)</b></li> <li>• <i>See also</i> [0065], [0108], [0115], [0138], [0145]-[0147], [0151]-[0152], [0154]-[0155], [0157], Figs. 7, 10, 21-22.</li> </ul> <p>Madisetti, ¶¶113-14.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <p><b>[9.c] an act of determining that the transcoding parameters to be applied to the requested media content prior to delivery to the client presentation system are the same as transcoding parameters that are being applied to the requested media content prior to delivery to another client presentation system;</b></p> | <p><b>Samaniego</b> discloses that when a request for content is made, a “media caching subsystem” checks whether a previously-generated image has been cached. Samaniego, [0103]. If not, <b>the request is passed to the “media creation subsystem” to generate the content.</b> Samaniego, [0103]. The “media creation subsystem” then returns the created content to the “media caching subsystem” for caching. Samaniego, [0103]. <b>Samaniego</b> further discloses that “[m]ultiple client browsers” <b>communicate with the system.</b> Samaniego, [0137]. When multiple requests for the same content are received, <b>subsequent requests are served using previously-generated media to minimize “overhead.”</b> Samaniego, [0135]. Madisetti, ¶¶115-16.</p> <p>For example, these teachings not only render obvious, but affirmatively disclose that when the claimed request (see [9.a]) is received, <b>the system would determine whether the same content is already being created at the media creation subsystem in response to an earlier request in order to reduce “overhead”</b> associated with generating and caching the media. Samaniego, [0135]; Madisetti, ¶117.</p> <ul style="list-style-type: none"> <li>• <b>[0065]</b> (“The system takes as input the client connection, server traffic, content generation procedures, and proprietary tags placed within the URL to generate optimized media for the client. The need for the Web author to create different versions of a Web site is reduced because the image content of the site is</li> </ul> |

| '242 | Samaniego                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      | <p>automatically handled by the system. In addition, <b>generated media is cached such that further requests for the same media require little overhead.</b>")</p> <ul style="list-style-type: none"> <li>• <b>[0103]</b> ("The media caching subsystem 620 determines if an image has been created for the requested proprietary tag. If the image has already been created and the files that built that image have not been modified, the media caching subsystem 620 returns an HTML tag that refers to a previously-generated image. If the image has not been created, the media caching subsystem 620 hands the HTML tag to a media creation subsystem 630[.] The media creation subsystem 630 returns an image to the media caching subsystem 620. The media caching subsystem 620 adds the created image and the HTML tag to a media cache database 640.")</li> <li>• <b>[0104]</b> ("The media cache database 640 contains references to the created images 645. In a preferred embodiment, the references are the script used to create the image, the names of the images used to create the image, the dates of those files, and the HTML that represents the created image. The media caching subsystem 620 performs lookups in this database to determine if the image has been created. If the image has not been created the media caching subsystem 620 calls upon the media creation subsystem 630 to create the image and then store the results in the media cache database 640.")</li> <li>• <b>[0135]</b> ("The system takes as input the client connection, server traffic, content generation procedures, and proprietary tags placed within the URL to generate optimized media for the client. The need for the Web author to create different versions of a Web site is reduced because the image content of the site is automatically handled by the system. In addition, the</li> </ul> |

| '242                                                                                                                                                                                                                                                      | Samaniego                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                                           | <p><b>generated media is cached so that further requests for the same media require little overhead.”)</b></p> <ul style="list-style-type: none"> <li>• <b>[0137]</b> (“A preferred embodiment of the invention is described with reference to FIG. 17. FIG. 17 is a schematic diagram of an image system within a typical Web infrastructure according to the invention. The image system 100 is placed in parallel to an existing Web server 110. The image system 100 may be on-site or off-site to the Web infrastructure. <b>Multiple client browsers 120a-120d communicate with both the Web server 110 and the image server 100 via the Internet 130.”)</b></li> <li>• <b>See also, e.g., [0064], [0090]-[0092], [0094], [0102], [0105], [0108], [0111], [0126], [0134]-[0135], [0138]-[0140], [0143]-[0144], [0147]-[0148]-[0149], [0151]-[0152], [0155], [0157], Figs. 7, 9, 10, 21-22, Tables C, D, F; Madisetti, ¶¶115-17.</b></li> </ul>                                                                                                                                                                                                                                                                                  |
| <p><b>[9.d] an act of transcoding the requested media content in accordance with the identified transcoding parameters, such that the identified transcoding parameters are used to perform additional incremental transcoding on top of the base</b></p> | <p>Samaniego discloses that <b>“intermediate media”</b> are generated using “content generation” procedures, and cached as content <b>corresponding to a “base transcoding profile.”</b> See Samaniego [0149]; [9.a]; Madisetti, ¶¶118-20. After an “intermediate media” is generated, when a subsequent request, such as the claimed request (see [9.a]), is received, the system selects the previously-generated “intermediate media” using this <b>“base transcoding profile”</b> that has been transcoded according to only some of the transcoding parameters (e.g., on which additional <b>“dynamic processing”</b> and processing based on <b>“user profile characteristics”</b> is required), and then <b>further transcodes that media in accordance with the identified transcoding parameters</b> (e.g., the additional <b>“dynamic processing”</b> parameters and transcoding based on <b>“user characteristics”</b>). Samaniego, [0149], [0152]; see also [9.b]. Madisetti, ¶¶119-20.</p> <ul style="list-style-type: none"> <li>• <b>[0149]</b> (“The parser generates a unique primary lookup key 2110 for the specified resulting media. If the key corresponds to an existing generated media 2180, such</li> </ul> |

| '242                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Samaniego                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>transcoding profile;</b></p> <p><b>[9.e]</b> wherein <b>the act of transcoding the requested media content in accordance with the identified transcoding parameters comprises:</b></p> <p>an act of selecting a pre-existing base transcoded version of the requested media content comprising intermediate derivative media that has been transcoded in accordance with only a portion of the identified transcoding parameters; and</p> <p><b>[9.f]</b> <b>an act of creating a final</b></p> | <p>media is returned immediately to the browser 120 through a media cache 2120, and the transaction is complete. Otherwise, a media generation occurs. In the case of media generation requiring dynamic content processing, a unique secondary lookup key corresponding to intermediate media is generated 2130. <b>If intermediate media 2170 corresponding to this key is found, such media is passed directly to the dynamic media content system 2150 having dynamic media procedures, wherein appropriate action is taken to generate the required derivative from the intermediate media data. A unique key is generated for the derivative 2130 and passed to the media caching system 2120. If the media caching system finds no such intermediate image, such intermediate image is generated according to instructions specified by the content generation procedure, cached by the media cache system 2120 as a secondary cached media 2170, and passed to the dynamic media system 2150. Again, appropriate action is taken to generate the required derivative from the intermediate image data.”)</b></p> <ul style="list-style-type: none"> <li>• <b>[0152]</b> (“FIG. 22 shows a flowchart of the content generation procedure according to a preferred embodiment of the invention. <b>A URL containing proprietary tags (2200) is parsed (2210) to determine</b> the content generation procedure to execute, any dynamic modifications to the media, <b>user profile characteristics</b>, and proxy-cache control. A unique final lookup key is generated for the media (2220) and the media cache is checked (2230). If the indicated media exists, control passes to proxy-cache control (2290) and the media is delivered to the browser (2295). Otherwise, dynamic media system tags are separated from content generation control tags (2240) and <b>a unique intermediate image lookup key is generated (2250). The cache is then checked for</b></li> </ul> |

| '242                                                                                                                                                                                               | Samaniego                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>version by incrementally performing further transcoding of the pre-existing base transcoded version in accordance with a remaining portion of the identified transcoding parameters;</b></p> | <p><b>such intermediate media (2261). If such intermediate media is found, it is used directly for dynamic processing, if required.</b> Otherwise, content is generated (2262) and cached (2263), and the result is evaluated for dynamic processing (2270). <b>If dynamic processing is required, the media is operated upon by the dynamic content generator (2271),</b> otherwise it is evaluated for valid content type (2272). If the content type is invalid, the media is automatically converted to a valid type (2273). <b>The resulting image is then customized by the user profiling system (2280) for specified browser or client attributes.</b> Finally, any cache-control directives specified are attached to the response (2290) and the media is delivered to the browser (2295).”</p> <ul style="list-style-type: none"> <li>• <b>See also [0144], [0146]-[0147], [0149]-[0152], Figs. 21-22; Madisetti, ¶¶118-20.</b></li> </ul>                                                                                                                                                                                                                             |
| <p><b>[9.g] an act of delivering the transcoded media content to both client presentation systems concurrently.</b></p>                                                                            | <p>As discussed for [9.c], <b>Samaniego</b> discloses that the system determines that the same content is already being created in response to an earlier request to reduce overhead. For similar reasons, Samaniego’s teachings that “[m]ultiple client browsers” communicate with the system and request content not only render obvious, but affirmatively disclose, that the “media creation subsystem” generates, and then the “media caching subsystem” caches, this media once and then this same content is <b>“returned to the browser”</b> on each of the two systems, thereby reusing the same generated media for both requests concurrently to reduce overhead. See [9.c]; Samaniego, [0151]; Madisetti, ¶¶121-22.</p> <ul style="list-style-type: none"> <li>• <b>[0151]</b> (“The final media is passed to a user profile system 2160 wherein browser characteristics specified through proprietary tags within the URL are inspected, and appropriate modification to the media is performed, based on such characteristics. <b>The resulting image is</b> handed to the media cache system 2120 for caching and <b>returned to the browser 120.</b>”)</li> </ul> |

| '242 | Samaniego                                                                                                                                                  |
|------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      | <ul style="list-style-type: none"><li>• <i>See also, e.g.</i>, [0092], [0136]-[0137], [0151]-[0152], Figs. 1, 17-19, 21-22; Madisetti, ¶¶121-22.</li></ul> |

C. **Ground 4: Samaniego in View of Tso**

To the extent it is argued that Samaniego does not disclose [9.c] or [9.g], as discussed above in §IX.A.3, **Tso** teaches “concurrently” handling two client requests for the same content as recited in these elements using multiple-thread processing. A POSITA would have been motivated to apply these teachings to **Samaniego**. Madisetti, ¶123.

Like **Tso** (see §IX.A.1), **Samaniego** is in the same field as the '242—networked media delivery—and indeed the '242 claims priority to and has the same specification as Samaniego. Samaniego, [0002], [0064], [0090]; *see also* '242, Cover; Madisetti, ¶124.

While **Samaniego** teaches that it is advantageous to handle “identical requests ...without regeneration of images,” **Tso** teaches how to avoid generating two copies of an image for concurrent requests using multiple-thread processing. Samaniego, [0054]; Tso, 6:45-50; Madisetti, ¶125. A POSITA thus would have been motivated to modify **Samaniego** with **Tso**’s teachings of multiple-thread processing to achieve the beneficial and predictable result of serving two concurrent requests

for the same media content for at least the following independent reasons. Madisetti, ¶125.

**First, Tso** teaches handling concurrent requests for the same media—*e.g.*, before the output from the first request is cached—by using multiple-thread processing to concurrently serve the requests, while **Samaniego** teaches that it is advantageous to handle multiple requests without regenerating the same content. Tso, 6:51-63; Samaniego, [0110]; Madisetti, ¶126. A POSITA would have been motivated to modify **Samaniego** with **Tso’s** teachings to reduce unnecessary processing of the same content twice in the same way, as would otherwise occur if the output of the first request is not yet cached when the second request is received. Madisetti, ¶126.

**Second, Tso** teaches improving the efficiency and speed of the system by using multiple-thread processing to eliminate the need to “wait[] for a hypertext object” to be added to cache before reusing the object. Tso, 6:51-63; Madisetti, ¶127. **Samaniego** discloses that it is advantageous to improve the “speed” to “add images, video, and sound to sites.” Samaniego, [0045]. A POSITA would have been motivated to modify **Samaniego** with **Tso’s** teachings to improve the efficiency and speed of the system. Madisetti, ¶127.

**Third, Tso** provides complementary teachings of managing processing load to Samaniego’s teaching of adjusting image quality based on such factors as client

“connection speed” and “server traffic.” Samaniego, [0115], Table C; Madiseti, ¶128. Tso discloses a method that adjusts content processing based on the “condition of the device” and supplements Samaniego’s teachings by identifying additional parameters that are similar to “server traffic” that may be considered as relevant to processing choices, including “current processing load” at the transcoding server. Tso, 6:64-7:14; Madiseti, ¶128. A POSITA would have found it obvious to further consider “current processing load” at the transcoding server when deciding how to modify image bandwidth to beneficially optimize the use of server processing resources. Madiseti, ¶128.

In light of these teachings, a POSITA would have had a reasonable expectation of success in modifying **Samaniego** with **Tso’s** teachings of multi-threaded processing. Indeed, **Tso** teaches that its disclosed multiple thread access to cached objects uses a “standard” interface and does not “require any particular configuration” for the cache, while **Samaniego** teaches using a cache to avoid regenerating content for subsequent requests. Tso, 4:48-5:7, 5:2-7; Samaniego, [0135], [0138]. A POSITA therefore would have found it straightforward and obvious to modify **Samaniego** with **Tso’s** teachings, yielding a system in which **Samaniego’s** teachings are used to concurrently serve content to multiple users using multi-threaded processing. Madiseti, ¶129. A POSITA would have also had a reasonable expectation of success in making this modification because Tso simply

discloses additional features to consider when making image bandwidth adjustments similar to those already disclosed in Samaniego. Madisetti, ¶129.

## **X. SECONDARY CONSIDERATIONS**

There is no evidence in the '242's prosecution history or elsewhere supporting any secondary considerations arguments, or evidence of nexus to Claim 9. *See generally* '242 FH; Madisetti, ¶130. Indeed, as demonstrated by the prior art referenced herein, any purported solutions to problems or unexpected results in the '242 were already well known. Madisetti, ¶130. To the extent PO asserts the existence of any secondary considerations in its responses, Petitioner reserves the right to address any such evidence.

## **XI. CONCLUSION**

Substantial, new, and noncumulative technical teachings have been presented for '242's Claim 9, which is anticipated and obvious for the reasons set forth above. Madisetti, ¶¶131-36. There is a reasonable likelihood that Petitioner will prevail as to Claim 9. *Inter partes* review of Claim 9 is accordingly requested.

Respectfully submitted,

Dated: January 10, 2023

By: / James L. Davis, Jr./  
Name: James L. Davis, Jr.  
Counsel for Petitioner

**CERTIFICATE OF COMPLIANCE**

Pursuant to §42.24(d), the undersigned certifies that the foregoing Petition for *Inter Partes* Review of U.S. Patent No. 8,495,242 contains, as measured by the word-processing system used to prepare this paper, 12,327 words. This word count does not include the items excluded by §42.24 as not counting towards the word limit.

Respectfully submitted,

Dated: January 10, 2023

By: /Daniel W. Richards/  
Name: Daniel W. Richards  
Counsel for Petitioner

**CERTIFICATE OF SERVICE**

I hereby certify that on January 10, 2023, I caused a true and correct copy of the foregoing Petition for *Inter Partes* Review of U.S. Patent No. 8,495,242 and supporting exhibits to be served via express mail on the Patent Owner at the following correspondence address of record as listed on PAIR:

22862 - GLENN PATENT GROUP  
c/o Perkins Coie LLP  
P.O. Box 1247  
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A courtesy copy was also sent via electronic mail to the Patent Owner's litigation counsel at the following addresses:

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