

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

AKAMAI TECHNOLOGIES, INC.,
Petitioner,

v.

LIMELIGHT NETWORKS, INC.,
Patent Owner.

Case IPR2017-00358
Patent 8,683,002 B2

Before GREGG I. ANDERSON, JENNIFER MEYER CHAGNON, and
GARTH D. BAER, *Administrative Patent Judges*.

CHAGNON, *Administrative Patent Judge*.

DECISION
Denying Institution of *Inter Partes* Review
37 C.F.R. § 42.108

I. INTRODUCTION

Akamai Technologies, Inc. (“Petitioner”) filed a Petition for *inter partes* review of claims 1, 2, 15, and 17 (“the challenged claims”) of U.S. Patent No. 8,683,002 B2 (Ex. 1001, “the ’002 patent”). Paper 3 (“Pet.”). Limelight Networks, Inc. (“Patent Owner”) filed a Preliminary Response. Paper 7 (“Prelim. Resp.”). For the reasons explained below, we exercise our discretion under 35 U.S.C. § 314(a) and 37 C.F.R. § 42.108(a) not to institute *inter partes* review of claims 1, 2, 15, and 17 of the ’002 patent.

A. Related Proceedings

The parties indicate that the ’002 patent is the subject of a co-pending district court proceeding, *Limelight Networks, Inc. v. XO Communications, LLC*, Case No. 3:15-cv-00720-JAG (E.D. Va.). Pet. 10; Paper 5, 2. Petitioner previously challenged claims 1–5, 7–10, 13, 15–18, and 20 of the ’002 patent in *Akamai Technologies, Inc. v. Limelight Networks, Inc.*, Case IPR2016-01001 (“IPR2016-01001”). See Pet. 10; Prelim. Resp. 1.

B. The ’002 Patent

The ’002 patent relates to delivering objects in content delivery networks (CDNs). Ex. 1001, 1:19–22. CDNs cache and/or host providers’ content (e.g., video, pictures, data, audio, software, text, etc.) for distribution to end users. *Id.* at 1:24–25, 3:2–4.

Figure 2 of the '002 patent is reproduced below.

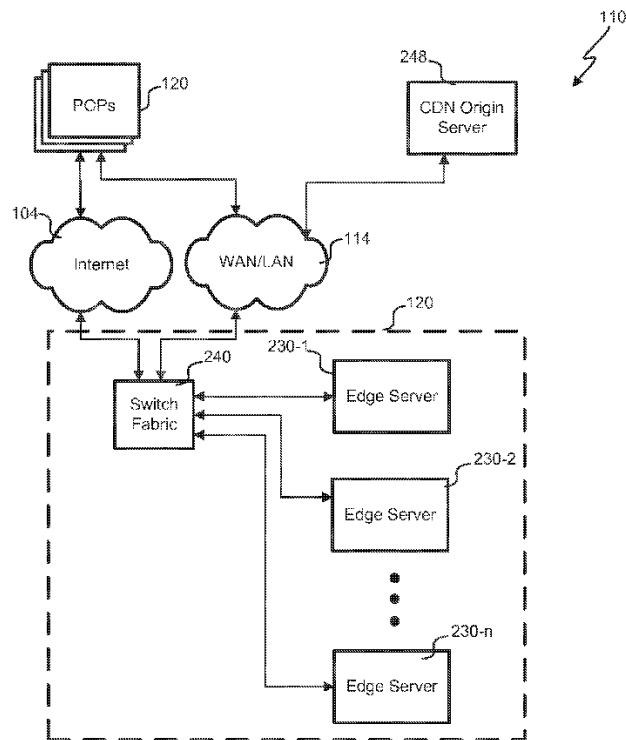


FIG. 2

Figure 2 is a block diagram of a CDN. *Id.* at 4:5–6. The CDN includes a number of points of presence (POPs), which are geographically distributed through the content distribution system to provide end users with nearby content sources, and edge servers in each POP to serve the end users' requests. *Id.* at 3:10–16, 3:50–52.

End users requesting content objects are directed to a particular edge server by a universal resource indicator (URI) that specifies the requested object. *Id.* at 1:59–62, 7:55–58. The edge servers can store popular or important content in cache at the edges of the CDN so that when customers request popular content, it is less likely to have delivery latency. *Id.* at 1:28–31.

Figure 4C of the '002 patent is reproduced below.

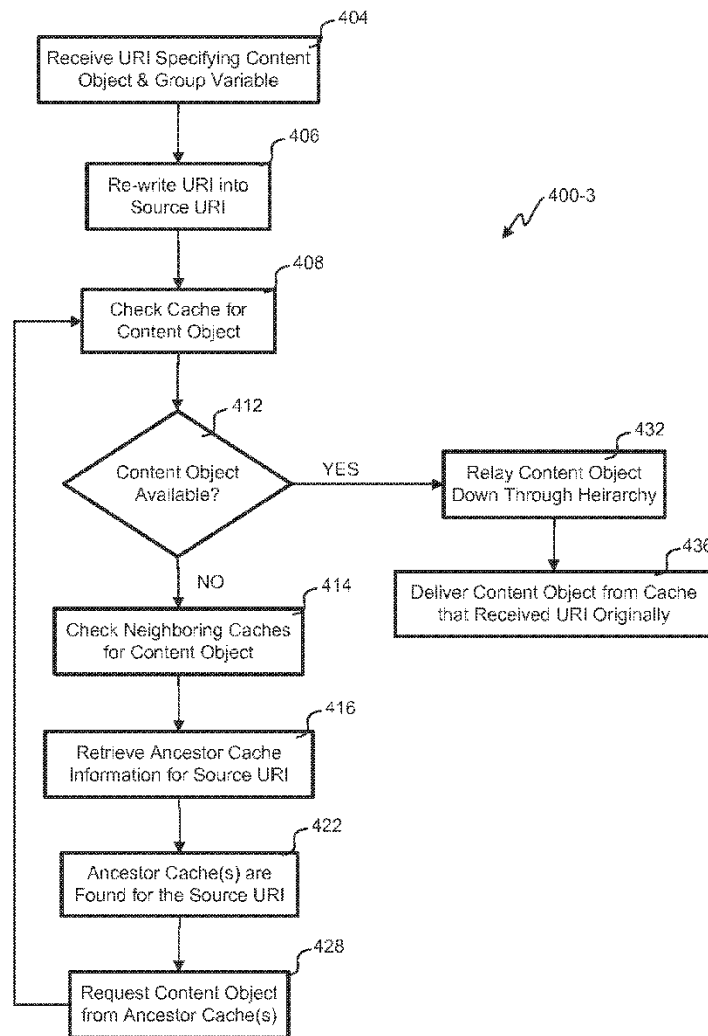


Fig. 4C

Figure 4C shows the hierarchical process for finding a content object, including after a cache miss—i.e., when an edge server does not have the requested object available. *Id.* at 1:33–35, 8:42–44. The process begins when an edge server receives a URI and checks its cache for the corresponding object. *Id.* at 7:55–8:3; *see id.* at 8:44–46. If the edge server does not hold the object, it searches neighboring servers for a suitable copy of the object. *Id.* at 8:44–48. If neighboring edge servers do not hold the content object, the edge server attempts to obtain the object from a parent

server. *Id.*; *see id.* at 1:62–66, 7:32–34, 8:32–37. If the parent server does not find the object, the request will go to a grandparent server, and so on up a hierarchy until the topmost server in the hierarchy goes to an origin server to find the requested object. *Id.* at 1:66–2:3.

C. Illustrative Claim

Of the challenged claims, claims 1 and 15 are independent. Claims 2 and 17 depend from claims 1 and 15, respectively. Claim 1 is illustrative and is reproduced below.

1. A method to retrieve content objects in a content delivery network (CDN) having a plurality of points of presence (POPs) distributed geographically by checking one or more neighboring servers before checking a parent server, the method comprising: receiving a first universal resource identifier (URI) at a first edge server having a first cache wherein:

the first edge server is in a first POP of the plurality of POPs, and

the first URI specifies a first content object;

determining that the first cache does not hold the first content object;

querying the one or more neighboring servers for the first content object, wherein the one or more neighboring servers each have a cache;

determining that one or more caches of the one or more neighboring servers stores the first content object;

serving the first content object from the one or more caches of the one or more neighboring servers;

receiving a second URI at the first edge server, wherein the second URI specifies a second content object;

determining that the first cache does not hold the second content object;

querying the one or more neighboring servers for the second content object;

determining that the one or more caches of the one or more neighboring servers do not hold the second content object;

analyzing the second URI to determine the parent server, and

requesting the second content object from the parent server after determining that the one or more caches of the one or more neighboring servers do not hold the second content object.

Ex. 1001, 10:17–50.

D. The Applied References

Petitioner relies on the following references. Pet. 12–13.

Reference	Date	Exhibit No.
U.S. Patent No. 7,133,905 B2 (“Dilley”)	Nov. 7, 2006	Ex. 1003
U.S. Appl. Pub. No. 2007/0156845 A1 (“Devanneaux”)	July 5, 2007	Ex. 1004

E. The Asserted Ground

Petitioner challenges claims 1, 2, 15, and 17 of the ’002 patent, asserting these claims would have been obvious under 35 U.S.C. § 103 over Dilley and Devanneaux. Pet. 13.

II. ANALYSIS

Institution of an *inter partes* review is discretionary. See 35 U.S.C. § 314(a) (authorizing institution of an *inter partes* review under particular circumstances, but not requiring institution under any circumstances); 37 C.F.R. § 42.108(a) (“The Board *may* authorize the review to proceed.”) (emphasis added); *Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1367

(Fed. Cir. 2016) (explaining that under § 314(a), “the PTO is permitted, but never compelled, to institute an IPR proceeding”).

Petitioner previously requested *inter partes* review of claims 1–5, 7–10, 13, 15–18, and 20 of the ’002 patent in IPR2016-01001. *See* Ex. 2002 (“IPR2016-01001 Petition”). In that proceeding, Petitioner asserted that claims 1, 2, 15, and 17, which also are challenged in the present Petition, would have been obvious under 35 U.S.C. § 103 over Dilley. *See* IPR2016-01001, slip op. at 8 (PTAB Nov. 3, 2016) (Paper 8) (“IPR2016-01001 Inst. Dec.”). We denied institution in IPR2016-01001 because we determined that Petitioner had not made a sufficient showing “as to what specific features [of Dilley, including Dilley’s background discussion of the method of Danzig¹] Petitioner is relying on, how the features would be combined, or why it would have been obvious to combine them.” *See id.* at 11–14.

In the present Petition, Petitioner identifies the earlier IPR2016-01001 proceeding. *See* Pet. 1, 10. In its Preliminary Response, Patent Owner

¹ Danzig et al., *A Hierarchical Internet Object Cache*, 1996 USENIX Technical Conf. (Jan. 22–26, 1996)). Dilley includes, in the Background section thereof, a brief discussion of Danzig’s method. *See* Ex. 1003, 1:43–2:3.

argues that we should deny the present Petition under 35 U.S.C. § 325(d),² as presenting “the same or substantially the same prior art or arguments previously presented to the Office” in the IPR2016-01001 Petition. Prelim. Resp. 13–20. As explained below, we agree with Patent Owner that the circumstances here do not favor institution of an *inter partes* review.

Our primary concern in this proceeding, however, is not that “the same or substantially the same prior art or arguments previously were presented to the Office” as expressed in 35 U.S.C. § 325(d),³ but rather the potential inequity of Petitioner filing multiple attacks, adjusting along the way based on Patent Owner’s contentions and the Board’s decision responding to a prior challenge. See *NVIDIA Corp. v. Samsung Elec. Co.*, Case IPR2016-00134, slip op. at 8 (PTAB May 4, 2016) (Paper 9). We agree with the panel’s reasoning in *Xactware Solutions, Inc. v. Eagle View*

² 35 U.S.C. § 325(d) states that “if another proceeding or matter involving the patent is before the Office, the Director may determine the manner in which the [current proceeding] or other matter may proceed, including providing for the stay, transfer, consolidation, or termination of any such matter or proceeding. In determining whether to institute or order a proceeding under this chapter, chapter 30, or chapter 31, the Director may take into account whether, and reject the petition or request because, the same or substantially the same prior art or arguments previously were presented to the Office.”

³ Regarding Patent Owner’s arguments based on 35 U.S.C. § 325(d) that the present Petition presents “the same . . . prior art . . . previously presented to the Office,” it is clear that Dilley was relied upon by Petitioner as the primary basis of Petitioner’s challenges both in the IPR2016-01001 Petition and in the present Petition. Although Patent Owner’s arguments in this regard are compelling, in this instance we exercise our discretion under 35 U.S.C. § 314(a) and do not institute an *inter partes* review; thus, we do not include a discussion of our discretionary authority available under 35 U.S.C. § 325(d) to reject a petition.

Technologies, Inc., Case IPR2017-00034 (PTAB April 13, 2017) (Paper 9), and view the following factors as relevant to this inequity concern, and therefore helpful in deciding whether to exercise our discretion to not institute review under 35 U.S.C. § 314(a):

- (a) whether the same petitioner previously filed a petition directed to the same claims of the same patent;
- (b) whether the petitioner knew or should have known of the prior art asserted in the later petition when it filed its earlier petition;
- (c) whether at the time of filing of the later petition, the petitioner already received the patent owner's preliminary response to the first petition or received the Board's decision on whether to institute review in the earlier petition;
- (d) the length of time that elapsed between when the petitioner had the patent owner's or Board's analysis on the earlier petition and when petitioner filed the later petition; and
- (e) whether the petitioner provides adequate explanation why we should permit another attack on the same claims of the same patent.

See Xactware, slip op. at 7–8. We address each of these factors in turn.

Petitioner Previously Filed a Petition Directed to the Same Claims of the Same Patent

As noted above, the IPR2016-01001 Petition also was filed by Petitioner, and included challenges to claims 1, 2, 15, and 17, which Petitioner again challenges in the present Petition. In IPR2016-01001, we denied institution as to all challenged claims. IPR2016-01001 Inst. Dec. 16.

Petitioner Knew of the Prior Art Asserted in the Present Petition When It Filed the IPR2016-01001 Petition

Out of concern for fundamental fairness, in determining whether to deny institution on subsequent petitions challenging the same claims of the same patent, we look to whether a petitioner knew or should have known of

the prior art asserted in its later case when it filed the earlier one. *See Conopco, Inc. v. Proctor & Gamble Co.*, Case IPR2014-00506, slip op. at 4–5 (PTAB Dec. 10, 2014) (Paper 25) (Informative). Here, Petitioner knew of the prior art asserted in the present Petition when it filed the IPR2016-01001 Petition. The present Petition relies on two references—Dilley and Devanneaux. The IPR2016-01001 Petition asserted grounds involving Dilley, thus Petitioner clearly knew of Dilley when it filed the IPR2016-01001 Petition. Ex. 2002, 10.⁴ Petitioner also knew of Devanneaux when it filed the IPR2016-01001 Petition, because Devanneaux is assigned to Petitioner. Ex. 1004, at [73]. Further, Petitioner relied on Devanneaux in another *inter partes* review proceeding for U.S. Patent No. 7,715,324 B2, in which the Petition was filed on May 13, 2016, just one week after the May 7, 2016, filing date of the IPR2016-01001 Petition. *See Akamai Techs., Inc. v. Limelight Networks, Inc.*, Case IPR2016-01011, slip op. at 8, 35 (PTAB Nov. 4, 2016) (Paper 8); Ex. 2002, 74 (dated May 7, 2016). Because Petitioner knew of the two references asserted in the present Petition when it filed the IPR2016-01001 Petition, this factor weighs against institution.

Petitioner Had Patent Owner’s Preliminary Response and the Board’s Institution Decision in the IPR2016-01001 Proceeding When Petitioner Filed the Present Petition

Patent Owner filed its Preliminary Response to the IPR2016-01001 Petition on August 11, 2016. *See* IPR2016-01001, Paper 7, 19. We issued our Institution Decision addressing the IPR2016-01001 Petition on

⁴ We cite to the original pages of the IPR2016-01001 Petition, rather than to the page numbers added by Patent Owner to Exhibit 2002.

November 3, 2016. IPR2016-01001 Inst. Dec. 1. Thus, when Petitioner filed the present Petition on December 2, 2016, Petitioner had both Patent Owner's Preliminary Response and the Board's Institution Decision addressing the IPR2016-01001 Petition.

The Elapsed Time Between When Petitioner Had Patent Owner's Preliminary Response and the Board's Institution Decision in the IPR2016-01001 Proceeding, and When Petitioner Filed the Present Petition

The delay between when Petitioner had Patent Owner's Preliminary Response and the Board's Institution Decision addressing the IPR2016-01001 Petition and when Petitioner filed the present Petition left Petitioner with sufficient time to take advantage of Patent Owner's and the Board's responses to the IPR2016-01001 Petition. When Petitioner filed the present Petition on December 2, 2016, Petitioner had Patent Owner's Preliminary Response to the IPR2016-01001 Petition for nearly four months, and our Institution Decision addressing the IPR2016-01001 Petition for one month. Thus, Petitioner not only had the relevant materials from Patent Owner and the Board when it filed the present Petition, but had ample time to take advantage of those materials in crafting its arguments in the present Petition. In fact, the present Petition specifically addresses our prior Institution Decision in IPR2016-01001. *See, e.g.*, Pet. 1, 7, 23–24, 33.

Petitioner Has Not Provided an Adequate Reason Why We Should Permit Another Attack on the Same Claims

Weighed against the factors outlined above are any non-strategic reasons Petitioner offers for the delay in filing the present Petition or any other justification for allowing this Petition to go forward. Although Petitioner identifies the earlier IPR2016-01001 proceeding (*see* Pet. 1, 10), Petitioner does not provide any explanation or argument as to why

consideration should be given to its second Petition, beyond a cursory statement that “the Board did not previously consider” Devanneaux (*see id.* at 1, 8). This consideration alone, however, does not justify permitting Petitioner to gain an unfair advantage by waiting to file the present Petition so that it could utilize our Institution Decision in the earlier IPR2016-01001 proceeding in order to craft the arguments presented in the present Petition.

We view Petitioner’s strategy—withholding additional challenges until receiving the Board’s feedback to help shape those challenges—as unfair to Patent Owner. With Patent Owner’s Preliminary Response and the Board’s Institution Decision in the IPR2016-01001 proceeding, and ample time to take advantage of those materials, Petitioner was able to use the deficiencies outlined in the IPR2016-01001 Institution Decision in an attempt to improve upon the earlier IPR2016-01001 Petition. The present Petition relies on Devanneaux to account for the claim elements we found lacking in the asserted ground in the IPR2016-01001 Petition, which was based on Dilley alone. *See, e.g.*, Pet. 1, 7–10.

Conclusion

We do not take lightly denying a petition on grounds unrelated to its substantive patentability challenges. Here, however, Petitioner’s strategy of adjusting its challenge in a second Petition based on the Board’s feedback in an earlier Institution Decision imposes inequities on Patent Owner. Further, *inter partes* review proceedings “are not to be used as tools for harassment or a means to prevent market entry through repeated litigation and administrative attacks on the validity of a patent. Doing so would frustrate the purpose of the section as providing quick and cost effective alternatives to litigation.” H.R. Rep. No. 112-98, pt. 1, at 48 (2011). Weighing the

respective factors here, we view the prejudice to Patent Owner to be greater than that to Petitioner in denying institution. We, therefore, decline to institute *inter partes* review.

III. CONCLUSION

For all of the reasons discussed above, we exercise our discretion under 35 U.S.C. § 314(a) and 37 C.F.R. § 42.108(a) not to institute review in this proceeding with respect to claims 1, 2, 15, and 17.

IV. ORDER

Accordingly, it is

ORDERED that the Petition is *denied* as to all challenged claims, and no trial is instituted.

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Patent 8,683,002 B2

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